MILITARY GEOGRAPHY
OF THE
BRITISH COMMONWEALTH

BY

MAJOR A. E. W. SALT

B.A. (Balliol College, Oxford); M.A. (McGill University)

ARMY EDUCATIONAL CORPS

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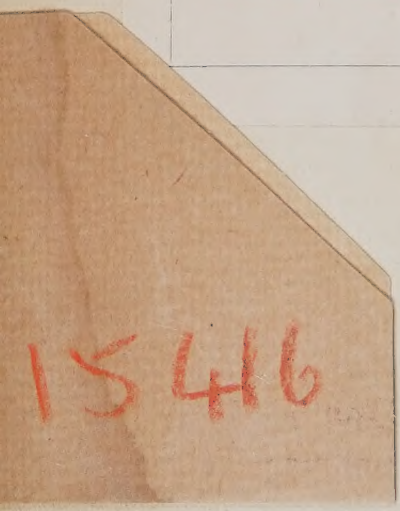

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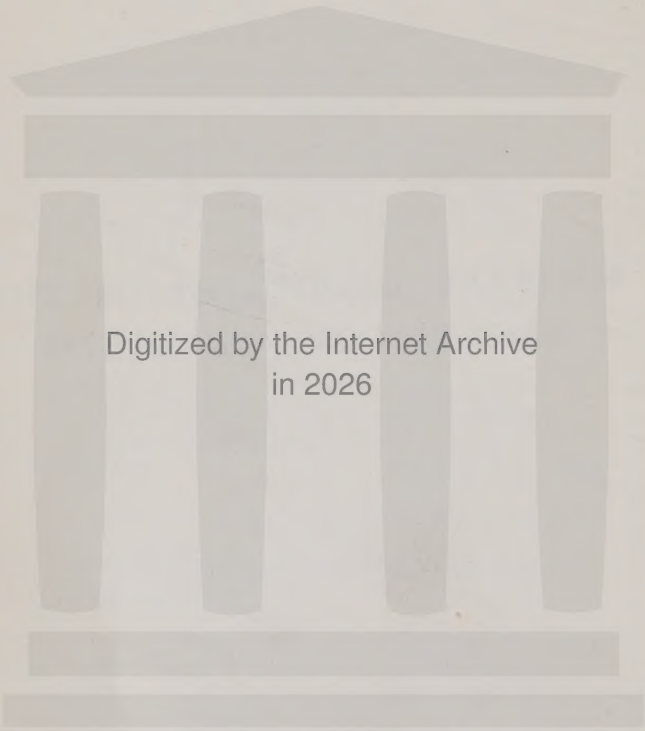
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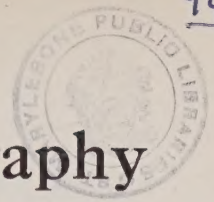

Military Geography
of the
British Commonwealth

BY

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B.A. (Balliol College, Oxford) ; M.A. (McGill University)
ARMY EDUCATIONAL CORPS

WITH A FOREWORD BY

LIEUT.-GENERAL SIR C. H. HARINGTON,
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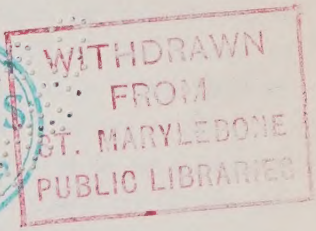

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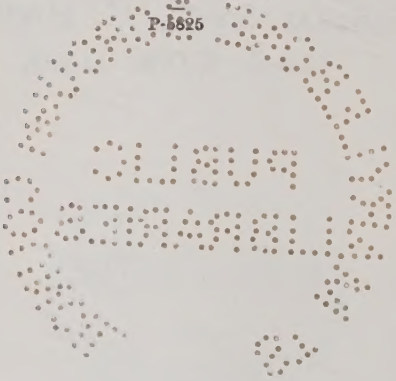

AUTHOR'S PREFACE

THIS book is issued primarily with the hope that it will help officers in the Promotion and Staff College Examinations.

It has, however, a wider appeal to those who believe in the Commonwealth and in its future and are interested in its problems in their especial relation both to economics and strategy. Such will read, it is hoped, the whole book, whereas those who desire to tackle special questions may do so, using the contents to guide them to the chapters they need.

As the volume itself is based on lectures given at the Army School of Education, Newmarket, the Army School of Administration, Chisledon, the School of Military Engineering, Chatham, and to audiences of officers and other ranks, Regular and Territorial, both in the Northern Command and elsewhere, my thanks are due to them first of all, for, by their patient hearing, they have encouraged me in the task of setting down my ideas in their present form. I also appreciate sincerely the wise counsel of many individuals, notably on the "G" side of the Northern Command Headquarters Staff, the Staff of the School of Administration, Chisledon, and in the War Office (S.D.8). Nor can I forget the debt I owe to the writings of Sir C. P. Lucas, Dr. Vaughan Cornish, at whose feet as an authority on the principles underlying the Science of Military Geography I willingly sit, Professors Bowman and Fleure, Mr. Thurston, and to an excellent brochure on the Defence of India. Also to Major Russell Jones, O.B.E., and Lieut. W. A. Asher for special help in suggesting maps and reading proofs respectively.

Finally, the actual preparation would have been quite impossible without the kindly aid of my publishers and the interest and forbearance of my wife.

FOREWORD

MAJOR SALT, my Senior Army Education Officer, has asked me to write a " Foreword " to his book entitled " Military Geography of the British Commonwealth." I am only too pleased to do so.

I have read the book with great interest, and I am confident that no one could do so without advantage. There is no doubt that it will be of immense assistance to the Army, as it supplies a volume of information for those who wish to study the history of the British Commonwealth. Intending students for the Staff College will owe a great debt to Major Salt. Here is the whole subject set forth in a very attractive form.

To the ordinary reader it presents a very interesting study of how our great Empire was founded, and gives a very clear picture of our possessions, communications, trade, etc., whereas the student for the Staff College and promotion examinations finds all the details he can possibly require. Every page is full of facts of interest.

The impression it leaves on me is what wonderfully far-seeing men those great men who built our Commonwealth must have been. One cannot but admire their judgment and their actions—they never feared responsibility. They no doubt thought out the " pros " and " cons " and then they acted. They were not fettered by present-day methods of cipher telegrams and reference number for every detail. They had a policy of " Empire "—their one object was to do the best for the Commonwealth, and they did it. Their methods were honest and just. They made the British word honoured and respected, if not liked, wherever they went. They were traders and administrators in every sense.

Wherever they went they saw ahead—they made roads and communications in order to develop any territory gained. How this contrasts with the Turks, for whom I have much respect! I remember in recent years in Turkey having to levy a tax on everyone in order to repair the roads round Constantinople and in Anatolia, as they had become quite unpassable. Shortly after the entry of the Angora Government—a government fully convinced that it can govern without foreign help or advice—a highly-placed Turkish official told me that the English were mad about roads and that they could manage without them. He was full of how they were going to show the world how to govern. It interested me, as one could see that their ideas were years behind the times—quite content with their old carts falling into holes, quite content for the wheels to fall off and their loads also, and quite content to sit down and wait till something else came along to pick up their loads. This was one of their up-to-date ministers. I had many interesting talks with him afterwards.

It was these talks which convinced me that they have a lot to learn before they can hope for success in their administration. Contrast this with the methods of administration which made our Commonwealth and our trade. We may well be proud of those who gained for us our great position; how it all grew may be complex and may be described, as it was by Sir C. Lucas, as a "bundle of sticks," but the sticks were good stout ones. They were not easily broken. I am afraid in these days some appear to be of more frail material—some appear to snap easily; let us hope that some of the former stout material may again be found. I feel that all readers will welcome Major Salt's book, which gives a mass of interesting facts in a very readable and condensed form.

C. H. Harington

Lt.-General

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MILITARY GEOGRAPHY
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CHAPTER I

The Development of the British Commonwealth.

The development of the British Commonwealth overseas begins with the permanent settlement at Jamestown in Virginia in 1607. For four centuries since that eventful act—with the single break of the closing years of the eighteenth century, when the American Colonies were lost—the Commonwealth has expanded. The chief cause of this expansion may be sought, not in any definite scheme of "Empire" thought out in advance by statesmen or politicians, but in the British *flair* for colonization, which may be defined as the power of adaptability to new conditions. This capacity is inherent in the race, and is due to the possession of a composite ancestry. The British have inherited the romantic and artistic genius of the Celt, the Roman love for discipline and order, the sea-loving spirit of the Anglo-Saxon, the legal sense and capacity for government of the Norman.

Further, this blending of qualities, which is still going on in the United States of America, and to a lesser degree in the self-governing Dominions, was in the United Kingdom almost complete by the end of the twelfth century.

In order to understand the motive and the secret of this expansion, a brief review of the growth of British unity at home, of the composite product known as the "Britisher," and of the development of his institutions, is essential.

Three essential facts must be remembered in this connection :—

1. The islands were never successfully attacked after the landing of William the Conqueror (1066), so that the national character has had time to affect all classes of the population.

2. The various races forming the British type were admirably fitted to the daring and heroic adventure of mastering the sea and building an " Empire," because they loved the sea and had won their way to England.

3. The British Isles, in physical character and geographical position, facing the great uncharted western main, and separated from the European continent, were admirably fitted to become the centre of an " Empire," as they had been the object of sea-roving adventurers.

But the early history of Great Britain is concerned not only with racial consolidation. Before expansion was possible, the islands themselves had to be conquered, and the dream of an Empire on the European mainland had to cease.

Until the Norman Conquest England, and England only, after the reign of Alfred the Great (871-901), was the conquered territory.

The Anglo-Saxon kingdom of Wessex, though it was the nominal suzerain even of Northumbria, could not prevent the Danish invasion of the early part of the ninth century, or their consequent settlements in East Anglia, the Eastern Midlands and Yorkshire, and it was only in the reign of Edward the Confessor (1042) that the Danish vassal kingdom of the north—stretching from the Lothians to the Humber, with its capital at York—came under the direct rule of a kingdom of England, whose boundaries differ little from the boundaries of the England of 1924.

4. As soon as William the Conqueror held England in his strong hand, he set up Earldoms on the Welsh and Scotch marshes, and even invaded Wales and Scotland. But this did not imply permanent lordship or control. His son, Henry I, went further and forced Malcolm of Scotland to do homage, and completed the conquest of South Wales. But the anarchy of the reign of Stephen undid most of these achievements, and the continental interests of Henry II, who never spoke the English language, even though we may credit him with the establishment of a vague suzerainty over Ireland, made England merely part of a foreign empire. Luckily, in the early years of the thirteenth century most of the Angevin possessions in France were lost by John Lackland ; and as England became more isolated, foreigners were gradually

expelled from the court, and the way was paved toward greater concentration on internal problems.

But England was not yet ready to think of Empire, because she was not yet Britain.

The son of Edward I was, indeed, acclaimed at Carnarvon Castle as the first Prince of Wales, and the law of England ran in Wales from 1284. But it was not until 1536 that Henry VIII, with Welsh blood in his veins, made Wales part of the United Kingdom, and gave to the Welsh counties the same rights as the English counties. Similarly, John Balliol might do homage to Edward I for his kingdom, but there were still Wallace and Robert Bruce to organize successful revolt, and the separate, independent kingdom of Scotland was not one with England until its personal union in 1603, under James Stuart—Sixth of Scotland and First of England.

Meanwhile, much valuable effort was wasted, first of all in the attempt and failure to stablish English claims to French territory, and then, after the middle of the fifteenth century, in the civil conflicts known as the War of the Roses, which did not end until, by the accession of Henry VII in 1485, the rival claimants for the throne had been eliminated.

Ireland still remained a difficult problem, but within four years of the assumption of the title of " King of Great Britain " by James I, the first permanent English settlement overseas was made, and the Commonwealth was launched.

As soon as Great Britain was practically one, the British Commonwealth could begin. But the opening of the reign of the first Stuart was of prime importance in another direction. It marked the beginning of a critical constitutional struggle, which was to end in the establishment of parliamentary government in Great Britain. From the beginnings of English history there is a desire to check the absolute power of the monarch—a desire which expresses itself strongly in the revolts of barons and churchmen against the aggressive tyranny of the Norman rulers. King John in 1215 is forced to sign the Great Charter; in 1265 Simon de Montfort, who leads the opposition to absolute rule, calls together a body known as the " Parliament," to which not only the nobles but also the counties and towns and the Church send representatives. The weaker a king is, the more interested he is in securing funds to carry

on his foreign wars, the more need has he of parliamentary assistance, until finally the Parliament of York, in the reign of Edward II, establishes the principle that no law is valid unless it receives the consent of the Commons. And though in the chaos of the closing years of the Middle Ages, under the despotic Tudors, the power of Parliament is in abeyance, with the accession of the foreigner James, the struggle is renewed. Charles I has his Cromwell, James II is forced to abdicate in 1688, until finally William, third of his name, another foreigner, comes to the throne at the request and by the permission of Lords and Commons.

To practical unity is now added a strong government controlled by a representative Parliament. A composite people, governed by consitutional means, is ready for Empire.

We may now consider the external influences that gave Great Britain the motive to expand.

The most important of these influences is the need of trade.

The Middle Ages, which may be said to end with the close of the fifteenth century, were marked by the emergence of commerce and the development of town life. Mediaeval trade was not national trade : it was carried on by towns with each other. At first the trade of each town was controlled by organizations of employers of all crafts, or " merchant gilds." The regulations of these gilds restricted buying and selling to certain specified places, exacted tolls and kept out " foreigners " who might be merchants from other English towns.

By the thirteenth century, with the development of industry, each craft had its own gild. Craft gilds regulated manufacture, standardized the size and quality of goods, controlled apprenticeship, levied fines for " false " work, and made rules for their own crafts. Seventy-five of these craft gilds exist in London to-day, no longer exercising authority over craftsmanship, but in possession of considerable power through their charitable and educational enterprises and their ownership of property.

By the end of the Middle Ages the growth of trade on a large scale, and the advent of national feeling had largely

destroyed the influence of the gilds, which had outgrown their usefulness. The nation was ready for a more adequate commercial policy.

For a long time England drew her fine manufactured goods from abroad, exchanging for these goods her wool. The place of exchange was the fair, the greatest English fair, the September Fair at Stourbridge, near Cambridge. English wool—the production of which was little affected by war, which continued in almost unbroken succession over the Continent—found its way chiefly to Flanders. When Flanders was devastated by religious strife, Flemish weavers made their way to England, and settled down in the eastern counties. From this time England begins to be not only a producing, but a manufacturing nation.

As soon as cloth could be manufactured for foreign use, an organization of English merchants, known as the "Merchant Adventurers," was formed to compete in the Baltic with the German merchants of the Hanse Towns. The date of their charter is 1505, and between 1505 and 1600, when the most important of the companies for colonial trade expansion —the Honourable East India Company—was granted a charter by Elizabeth, Russia (the Russia or Muscovy Company in 1554), Turkey (the Levant Company in 1581), North Africa (the Morocco Company in 1585), and West Africa (the Guinea Company in 1588) were successively opened up.

But we must retrace our steps for a brief period.

We have already seen how Henry VII united in his person the rival claims to the throne, and brought peace to England. This is not the sum of his achievement. He offered bounties for the building of large ships, and built the first dry dock at Portsmouth, made the first English commercial treaty—the Intercursus Magnus—with the Netherlands (1496), and what is even more significant, in 1497, sent John Cabot, a Venetian living at Bristol, under his royal patent to search for the north-west passage to the East. Cabot landed on the North American Continent near Cape Breton, in what is now Nova Scotia, and England embarks on the stream of overseas dominion.

Cabot sailed with the hope of reaching the East. The East had always attracted Europe, because of its production of spices. The cooking of the Middle Ages was bad, the food

monotonous and coarse. It was only spices that made meat palatable, and the only known source of these spices was Asia, which was believed also to produce a wealth of precious stones, fine woods, perfumes, and fine cloth.

For a long time these goods were brought to Europe by three main routes—(1) by the southern route from India to Southern Arabia, thence by caravan to the Nile, and from Cairo and Alexandria in the ships of Venice ; (2) by a middle route up the Persian Gulf by way of Bagdad to the coast towns of Asia Minor ; (3) by a northern route from India and China by way of the Caspian to the Black Sea, from which the goods filtered into Europe mainly by the hands of Genoese carriers.

But the coming of the Ottoman Turks to Western Asia and their capture of Constantinople in 1453, severely checked the trade by land in those Eastern goods for which Europe had developed a great need.

Meanwhile, Portugal, a small nation comparatively unimportant in the affairs of Europe, geographically situated at the edge of an unknown continent, and ruled over by a succession of able monarchs anxious for the spread of Portuguese power, who encouraged every effort to find a new road eastward, was busily engaged in exploring the West Coast of Africa.

The pioneer of the work of exploration is the great Portuguese prince, Henry the Navigator. At Sagres, near Cape St. Vincent, he set up an observatory and a school of instruction. To practical knowledge he added keenness. At the time of his death in 1469 Portuguese sea captains had sailed within 15° of the Equator, in 1471 the Equator was crossed, in 1487 Bartholomew Diaz rounded the southern end of the continent, in 1497–1498 Vasco da Gama passed the extreme point reached by Diaz, gave on Christmas Day the name of Natal to newly discovered land, and finally, after a voyage of twenty-three days across the Indian Ocean, anchored in the harbour of Calicut on the Malabar coast of India. The new way to the East was open.

During the next twenty years Portugal consolidated her power in the East Indies, and " factories " were established at various points on the Indian Coast. Malacca was taken in 1511, the Moluccas, or Spice Islands, were occupied

in 1512, and finally the Portuguese flag flew over Aden and Socotra on the Red Sea, and over Ormuz in the Persian Gulf. The trade monopoly of the Italian cities was largely transferred to the hands of the country of Henry the Navigator.

Meanwhile, in 1492, Christopher Columbus, a Genoese in Spanish employ, had made his famous voyage across the Atlantic. Columbus hoped to reach the Indies by sailing westward. He took with him a letter of introduction to the Great Khan from Ferdinand and Isabella of Spain, and a converted Jew named Torres who knew Arabic. When he arrived at the West Indies he still thought that Cuba was Cipangu or Japan. It was only his contemporaries who realized that he had discovered not a new road to the East, but a new continent.

In this early rush of exploration, before the days of the Elizabethan seamen, England played but a modest part. Only John Cabot sailed under the English flag. Even his daring venture, in the small vessel manned with eighteen men, brought no territory of value in its wake, and the age of Elizabeth must come and go before England begins to rival Spain and Portugal in the establishment of colonial empire.

Prior to the reign of Elizabeth, Spain and Portugal had agreed by the Treaty of Tordesillas (1494) to divide all lands discovered in the West on the basis of a line of demarcation 370 leagues west of the Canary Islands, west of which line all lands were to be the exclusive possession of Spain. This settlement was followed by a startling growth in the Spanish kingdoms beyond the seas. Within half a century Spanish explorers in succession discovered the mainland of Central America—the coast of what is now British Guiana and Venezuela, the island-nature of Cuba, the coast of South America as far as the Rio de la Plata, the fact of the Pacific Ocean, and Florida.

In 1519 and 1520, while Cortez was conquering Mexico, Magellan (Magalhaes), a Portuguese in Spanish service, was passing through the straits to which he gave his name, and crossing the " Pacific " ocean, to the Philippines, and after his death on the island of Cebu, one of the Philippine group, his comrades eventually found their way back to Spain three

years later by the Spice Islands, the Indian Ocean, and the Cape of Good Hope. Sebastion Elcano, their leader, was rightly given a coat of arms with a globe encircled by the inscription "*Ego hoc primus circumdedi*"—"I was the first to encompass this."

Nine years later Pizarro won Peru, and by 1540, Ecuador, Bolivia, and Chile had been added to the Spanish Empire. Further, in 1580, Portugal and Spain became one, and the New World of the East was jointly theirs.

With this England had nothing to compare.

For the first half of the sixteenth century England and Spain were on friendly terms, and the rulers of England too much engaged in European politics and local defences to give attention to Imperial expansion. But we must not forget the inherited interest of Henry VIII in the navy that his father had fostered. The establishment of a Navy Board, of Trinity House to train pilots, the legacy of a fleet of seventy-one vessels, formed the nucleus of maritime power, without which greatness on the sea would have been impossible. When Elizabeth, his daughter, became queen in 1558, and, after a vain attempt to steer a neutral course, was eventually forced, first, into veiled conflict, and then into open war with Spain, she found her father's legacy a useful weapon to her hand.

The reason for war was, first of all, religion. Henry VIII had become the champion of the Protestant cause in Europe, and Elizabeth was the child of Henry's marriage with Anne Boleyn after his rupture with Rome. England was full of intrigue, surreptitiously supported by Philip II of Spain, mainly aimed at replacing Elizabeth on the throne by Mary Queen of Scots. Only a year after the execution of Mary—always a centre of revolt—the Spanish Armada descended on England.

The second reason was international jealousy. Philip of Spain was angered at the assistance given by England to the Netherlands in 1585, after he, and Henry of Guise, King of France, had determined to expel Protestantism, and bring the Dutch back to their original allegiance.

The third, and not the least important, was commercial rivalry on the open sea. English "sea dogs," tacitly encouraged by their queen, had long harried Spanish

commerce by sea and land. The attitude of these " gentlemen pirates " was almost justified by the intensely selfish and restrictive policy engendered by the Spanish colonial system, which made it impossible for any other nation to carry on lawful trade with the Spanish colonies. Even in Spain itself colonial trade was limited to the two towns of Seville and Cadiz. Consequently, illicit trade was rife, and the English, with their own growing commerce, and the increasing spirit of sea adventure, were quick to take advantage of the opportunity.

The first seamen of the age were John Hawkins and Francis Drake. Hawkins was the first to avail himself of the demand for cheap labour in the New World by carrying negroes from the African coast to the West Indies and bartering them for hides, sugar, ginger and pearls. He eventually became in 1573 Treasurer and Controller of the Navy. Francis Drake—satirically surnamed the " Dragon " for his terrifying audacity—in 1577–1580 circumnavigated the world, and captured on his way a great Spanish trade galleon sailing between Manila of the Philippines and Acapulco on the Mexican coast.

But there were many others besides Hawkins and Drake acting from diverse motives—plunder, trade, and even colonization—as when Sir Humphrey Gilbert made his ill-fated attempt to settle Newfoundland, and his half-brother, Walter Raleigh, failed in like manner at Roanoke in Virginia.

The climax of the work of the Elizabethan seamen was the defeat of the Armada in 1588. Philip of Spain at last ventured out into the open to attack his covert enemy at home. The story of the running fight is well known. Trained seamen in heavily armed ships were matched against great troopships full of soldiers. It was a complete victory for the cardinal principles of naval science, as known to the English navigators of the age. On the English side sixty-eight men were killed or wounded ; of the Spanish Navy sixty-three out of 130 vessels were destroyed in the fight or in the subsequent storms that arose on their return voyage.

" Here," says Seeley, " begins the modern history of England." Henceforth, the English were masters of the

sea. Within a year or two Drake could venture even into Lisbon Harbour and seize sixty vessels.

The sea conquered, England could now think of " Empire," face the future with optimism and a new-born national pride.

As Henry VIII was reported by Lord Herbert of Cherbury to have said :—" England alone is a just empire, or, when we enlarge ourselves, let it be in that way we can, and to which it seems the Eternal Providence hath destined us, which is the Sea."

Again, we may say :—" The Armada begins the modern history of England."

Before the close of the seventeenth century a new rival is to spring up in the Dutch. But this rivalry is barely to commence before (in 1607) the London Company, under charter from James I, makes a permanent settlement at Jamestown in Virginia.

Minerals,—gold, silver, copper—and a new road to the South Seas, were the two motives of the settlement.

But there were wise men—notably Captain John Smith—among the early settlers, and when the minerals did not eventuate and the new way was not discovered, wheat growing, and finally, in 1612, tobacco paved the way to prosperity.

Meanwhile, farther north, the Plymouth Company had sent out in the *Mayflower* men and women to territory between 40° and 48° N., known by the name of New England. With these pilgrims to a strange land the mainspring of emigration was not trade or discovery, but settlement in a country in which they could worship after their own Protestant fashion. Like their compatriots to the south, the *Mayflower* settlers were threatened with starvation on their arrival. Like the Virginia colony, they were saved by other means—in their case by developing a trade in furs.

Other settlements followed along the American coast in rapid succession. By 1642 Massachusetts Bay, Connecticut, New Haven and Rhode Island were in existence, and the first three, with Plymouth, were virile and independent enough to form a " perpetual league of friendship."

During the same period, also, much work of great importance to the Empire was being done both in the extreme north and in the south of North America. In Newfoundland, a small colony was founded in 1610, and the fishing industry was increasing by leaps and bounds; while the first stage in Arctic discovery was being begun by the daring endeavour of Hudson and Baffin and Button and Fox.

The fascination, also, of the islands off the south-east coast proved so strong, that the Bermudas were occupied as early as 1612, and St. Kitts, Barbados, Nevis, Montserrat, Antigua, within the next twenty years, while with the encouragement of Cromwell, Jamaica was captured from Spain in 1655.

Moreover, as the development of the West Indies still called for an adequate traffic in slaves—the monopoly in which the British had now wrested from the Dutch—holdings were secured on the West African mainland in Gambia and the Gold Coast.

Expansion in other parts of the world did not follow along the same line as the peaceful penetration of the American mainland. British development in the waters of the Far East could not be peaceful, so long as the commercial and sea-loving Dutch people of the Low Countries—as Belgium and Holland were then called—were competitors with Great Britain in the race for trade. Eastward, the movement of the Dutch had followed close on the union of Spain and Portugal and their consequent monopoly of the spice trade. So long as they remained under the sovereignty of Spain the Dutch were distributors and not carriers. As soon as they secured their independence by the Peace of Westphalia in 1648, they determined to become their own European carriers of goods from the East. In 1602 the semi-national Dutch East India Company with a huge capital was formed, and by 1619 the Dutch had secured such a firm grip on the Spice Islands that they could create a capital at Batavia on the island of Java and appoint a Governor-General of the Dutch East Indies.

During Van Diemen's tenure of this office (1636–1645), Ceylon and Malacca were won from the Portuguese, and the Chinese and Japanese trade fell into Dutch hands. The

presence of the Boers in South Africa, and names like New Zealand, Tasmania, and Cape Horn, are permanent memorials of Dutch activity in the seventeenth century.

Meanwhile, the English were moving much more slowly. The formation of the East India Company on the last day of the sixteenth century, as a commercial concern, financed not by the Government but by private individuals, was a modest beginning to the acquisition of British India—to the record of Imperial growth in the East. The purpose of the Company was essentially "quiet trade" and not territorial expansion. But its "factors" soon travelled beyond the Indian peninsula to the Spice Islands, and conflict with the Dutch ensued. Out of the conflict came, in 1619, an agreement under which one-third of the trade of the Spice Islands passed into English hands. Such an agreement was bound to be temporary. In 1623, taking advantage of the precarious political situation in England, the Dutch massacred every Englishman in the island of Amboyna, on the pretext that they were plotting to capture the fort. At the moment nothing happened, but it was obvious that sooner or later the Dutch would have to make amends.

Meanwhile, the cession of Bombay as part of the dowry of Catherine of Braganza, Queen of Charles II, and its subsequent sale seven years later for £10 to the East India Company, the purchase, in 1640, of Fort St. George—the forerunner of Madras—and the establishment the same year of a factory at Hugli, just north of Calcutta, laid the foundations of British India.

Since, owing to the climatic conditions, there was no influx of colonists into India as into the North American plantations, and since the interests of the Company were purely commercial, territorial control was limited to the factories and their compounds.

The Dutch were by now in contact with the British at more than one point. They also were interested in the African slave trade; they also held possessions in the West Indies; they also had settled on the North American mainland, where the menace of their colony—planted between Virginia and New England—had been the chief reason for an English-speaking confederation. Consequently, when war broke out in 1652, with the massacre of Amboyna still

fresh in men's memories, the immediate cause was the Navigation Act of 1651, which forbade foreign ships to carry colonial products from Asia, Africa or America, or goods of other countries to England save from the countries to which the ships belonged, and was directly aimed at the flourishing Dutch trade with the English West Indies.

The war had two phases—from 1652 to 1654, and from 1665 to 1667. The result was a drawn match slightly in favour of England. The Navigation Act was relaxed, but by the Treaty of Breda (1668) England, who had already received an indemnity for the Amboyna massacre, secured New Amsterdam, which was re-named New York. By the end of the century—though there was no more war—owing to the greater prominence of economic aims and the growing interest in colonies and colonial trade, England had wrested the leadership in commerce from her old antagonist.

Holland had a smaller country, her resources had been drained by almost continuous war with France, and she lacked the imperial sentiment and eagerness for expansion that characterized her English rival.

With Holland out of the way, Spain in decadence, and Portugal preserving a remnant of her world power only by her friendship with her old enemy, England had yet to contend for the next hundred years with the bitter enmity of France.

The " entente cordiale " is the healing of a breach that began in 1689, and lasted until Waterloo.

This conflict has been called the second " Hundred Years' War," and may conveniently be divided into six phases.

(1) King William's War, 1689–1697.
(2) War of the Spanish Succession—or Queen Anne's War, 1702–1713.
(3) War of the Austrian Succession, 1739–1748.
(4) Seven Years' War, 1756–1763.
(5) The American Revolution, 1775–1783.
(6) War against the French Revolution and the Napoleonic Wars, 1792–1815.

The rise of ill-feeling between the two countries was partly due to the desire of England to offset the abundant wealth, efficiency and success of Louis XIV, partly to their intense local rivalry in every part of the known world.

The French Colonial Empire began with the building of a fort at Quebec in 1608. The builder was Samuel Champlain —until his death, in 1635, the moving spirit in French progress on the North American continent.

With the accession of Louis XIV, not only did New France (Quebec and Western Ontario) and Acadia (New Brunswick) receive more settlers, but exploration was encouraged along the whole length of the Mississippi Valley, and Louisiana discovered and named. Yet, though the French thus came into possession of a vast territory, their occupation was not a success. Excessive interest in the affairs of Europe, rigid restrictions—political and religious—on their colonists, hinderedFrench rule in every part of the world.

The tale of the quarrel of England with France is no easy tale to tell. It is complicated by the shifting of the arena from Europe to the sea, from the sea to North America, from North America to the Far East. From our point of view, even if Pitt did say that " America was conquered in Germany," the wars in Europe are of secondary interest. As, also, the duel in India was not fought to the death until 1745, we may begin with the North American theatre.

The first war—" King William's War "—was waged in the country between the English north-west frontier settlements and the Great Lakes, a land of dense forest, inhabited by the five nations of the Iroquois, sworn enemies of the Algonquins on the St. Lawrence, who were allied to France, and of the Hurons farther west. The war resulted in nothing, and in 1697 the combatants were practically where they were before the struggle.

The second phase—called in America " Queen Anne's War "—was similar to the first, except that the New England colonies received more assistance from England, the Iroquois proved lukewarm and unstable friends, and the great Acadian stronghold of Port Royal—re-named Annapolis Royal—passed into English hands. Elsewhere Gibraltar, the key to the Mediterranean, was in 1704 easily taken by Sir George Rooke.

The Peace of Utrecht, in 1713, ratified this capture as well as the ownership of Minorca, Acadia, the Hudson Bay territories, Newfoundland, and St. Christopher in the West Indies.

The position of England in 1713, in face of a weakened and financially exhausted France, was, indeed, commanding. "Before this war England was one of the sea-powers; after this she is the sea-power without any second."

For the next twenty-five years England, guided by Walpole, averse to war, but vitally interested in commercial and industrial progress, remained at peace.

But war finally came in 1739. It began first with Spain. By the Treaty of Utrecht one English ship had been allowed to trade with the Spanish possessions in South America. This was a small privilege, but it had never before been granted to a foreigner. To the English it seemed too little, and smuggling became rife. One of the smugglers—Jenkins by name—was caught red-handed. On his return home Jenkins declared that the Spaniards had cut off his ear. His blood-curdling story, and the exhibition of the disjected member roused the nation to fury, and drove Walpole into war.

Within four years France was again embroiled in a dispute as to the partition of territory belonging to Maria Theresa, the young Queen of Austria. But this war, like the first war of the period, brought few territorial changes in its wake.

The culmination of the first series of conflicts was the Seven Years' War, which began in 1756.

Fortunately for Great Britain, after 1757 William Pitt was at the head of affairs. Pitt was courageous, honest, far-seeing, broad-minded, an excellent judge of men. During his regime, backed by elaborate preparations and splendid pluck, the British were victorious in every campaign in North America, until finally, on September 13th, 1759, the Battle of the Plains of Abraham and the subsequent capture of Quebec and of Montreal—the last French stronghold on the St. Lawrence—decided the fate of New France.

Moreover, in other quarters Pitt's leadership was equally fruitful. In Africa the French possessions about the Senegal River, Gorée and Lagos, became British. The French West India islands of Grenada, Santa Lucia, and St. Vincent also fell into British hands; while, at the same time, broader and more secure foundations were laid for empire in India.

The contest began in India just as the Mogul (Mohammedan) Empire—founded by Babar in 1526—was in a decline,

and various petty states, with indefinite obligations to the Mogul emperors, were coming into a precarious existence eked out by advice and military aid willingly rendered by foreigners with an eye to their own advantage.

The great protagonists in these diplomatic schemes were Dupleix and Clive, the one an aggressive master of diplomacy, the other an able soldier. The duel between their two wits came to a climax in 1751. In two of the states, Arcot and Haidarabad, Dupleix had successfully engineered his nominee on to the throne. In 1751, while the Rajah of Arcot was besieging an English garrison at Trichinopoly, Clive with 200 Europeans and 300 native troops took his capital, and held it. In a year or two Dupleix returned in disgrace to France, and after Eyre Coote's defeat of Lally at Wandewash and the starvation of Pondicherry into surrender in 1761, the British were supreme on the Coromandel coast.

Only Bengal remained unoccupied. Here again Clive was the *deus ex machina*. The capture of Calcutta by Suraj-ud-daulah, the local Nawab of Southern Bengal, and his notorious "Black Hole," were beyond toleration, as much as the Nawab's boast that he could govern foreigners with a pair of slippers. Clive's recovery of Calcutta was instant on his return from England. Success followed hard on success. The capture of the French fortress of Chandernagore was only a prelude to the complete victory of Plassey, in which the Nawab's commander, Mir Jafar, bribed by Clive, deserted to the English when he saw his side was beaten, and gained as his reward his master's throne over Bengal, Bihar and Orissa. With Mir Jafar as a figurehead, Clive was the real ruler of the Lower Ganges Valley for the East India Company. With all his faults, by his immense energy and indomitable will, he had made possible an Indian empire.

The treaty of Paris in 1763 confirmed his power, as it marked the retirement of France from the struggle for a great overseas empire. With the close of the Seven Years' War, the old Colonial Empire of England was formed.

It is now advisable to state briefly the conception that Englishmen of the age had of overseas possessions and of their government.

It is clear that up to the present the ruling motive in colonization had been the desire for trade and commerce, and that colonial enterprise had been fostered not so much by the Government as by private individuals interested in trading development. The English Government never thought much of overseas settlement until the successful duel with France opened their eyes to its importance.

During the eighteenth century English commerce developed with great rapidity, increasing five or sixfold with a continual balance of exports over imports. But it was mainly trade with Europe, and was regulated entirely for the benefit of the home manufacturer and shipper. This favourable regulation is known as the mercantile system.

For the conduct of war, an adequate supply of money in bullion form was regarded as essential. This stock of money could only, it was believed, be obtained by a favourable balance of trade—by selling more than was bought. As a result, imports were restricted, exports encouraged, and to ensure that the system was working properly, the Government interfered by navigation acts, by heavy import duties, by commercial treaties. Indeed, it interfered so much that there was a natural reaction leading to the doctrine of non-interference or *laissez-faire*, expressed in England in the pages of Adam Smith's "Wealth of Nations," published in 1775.

The application of restrictive measures to the colonies, whose industry was not considered an integral part of home industry, was the outcome of effort to expel foreign competition. All the products of the colonies were to come to England to be used there, or distributed to foreign countries, and colonies were valued not for their potential domestic development, or for their size, but for their value in helping to develop the commerce of England.

It was on these grounds that, in 1721, the Calico Act was passed, prohibiting the sale or wearing of Indian cotton goods in England; that, in 1732, the export of felt hats from one American colony to another was forbidden; and that, in 1750, the same American colonies were not allowed to manufacture iron beyond the pig-iron stage; while even Ireland, geographically too close to be regarded as other

than a serious competitor in the home market, was prevented from exporting her goods to other colonies, to England, or to foreign countries.

To the same end were passed half a hundred or so of Navigation Acts. The general purpose of Navigation Acts was to confine the importation of goods from all places abroad to English or colonial vessels, to bring all goods of foreign growth, production or manufacture directly to Great Britain, and to shut foreign ships out of the colonial and coastwise trade.

From time to time, also, certain articles were enumerated which could be carried only to England. For instance, in the first Navigation Act of 1660, sugar, tobacco, cotton-wool, indigo, ginger, fustic and other dyeing woods, in 1705, rice and molasses, in 1722, copper and furs were so named.

The very stringency of the Acts produced an effect opposite to the intention of those who were responsible for their passage. They were systematically violated and they caused a great deal of friction between the home country and the colonies.

We now come to a turning point in the history of Empire development marked by the revolt of the American colonies. The conclusion of the Seven Years' War was the grand climax of British expansion. Almost it became the grand finale.

The colonies of North America, now thirteen in number, were the fairest portion of the Empire. Their population numbered nearly two millions; they consumed each year over two million pounds' worth of exports—or twice as much as the West Indies—and they were not to be considered in comparison with New Brunswick and Nova Scotia, as yet undeveloped, or with Canada which had been seriously thought of as a profitable exchange for Guadelupe.

One of the chief reasons for the rebellion of the colonies has already been dealt with—the prevalent commercial attitude of the Mother Country.

Before 1763, the enforcement and non-enforcement of the Navigation Acts had embittered not only the colonial merchant, but the consumer. At the end of the war, during which the British Navy had been seriously hampered by illicit trade between the colonies and the French West

Indies, Great Britain proposed to make them pay in taxation part of the upkeep of an army stationed in North America for their own defence. With this new policy the Revolution began.

It must be remembered that by this time the colonies had grown up and away from the motherland. They were 3,000 miles distant, they had learnt self-reliance, independence of spirit, and a sense of common kinship in the throes of a constant struggle for existence; they had attained to practical self-government; they had imbibed democratic principles at an early stage; they were free of the French menace; they were conscious of power and of their united interests. Moreover, they were badly ruled by George III, "a consummate politician in the worst sense of the word."

Under such auspices, to inaugurate a "tightening" policy at the close of the war was somewhat risky, true as it was that England needed money. Her debt had almost doubled, her expenditure had risen to three times its normal size. Obviously, the colonies, whose customs produced a sum equal to only a quarter the cost of collection, should help. To this end, in 1761, writs of assistance were issued to enable the collectors to put the trade laws into execution; in 1764 the Sugar Act to prevent the "clandestine conveyance of goods to and from the colonies and plantations" was put into operation; and in 1765 a Stamp Act, levying a stamp duty in every conceivable form and making arrangements for the money to be paid directly into the British Exchequer, was passed. So great was the opposition that in 1766 the Stamp Act was repealed, but the repeal was rendered nugatory by the Declaratory Act affirming in crude, round terms that the colonies "have been, are, and of right ought to be, subordinate unto, and dependent upon the Imperial Crown of Great Britain"; and by three Acts of the next year, framed by Townshend, who was Chancellor of the Exchequer during Pitt's illness, establishing customs commissioners, providing for revenue by the collection of import duties, and encouraging the exportation of tea from England to "His Majesty's plantations in America."

Riots broke out at once, and though the obnoxious duties, except that on tea, were removed, in 1773 tea from England was pitched into the harbour of Boston. The "Boston

Tea Party " was the final spark. Before the end of 1774 the port of Boston was closed, Massachusetts was placed under temporary military government, and the Continental Congress of representatives of the colonies had sat in Philadelphia. Before the Congress could hold its second meeting, war had begun. The conduct of the war was marked on the British side by irresolution and lukewarmness ; on the American side by the fine leadership and determination of George Washington and his aides ; and after General Burgoyne's defeat at Saratoga in 1777 the conflict became but a further phase of the great Franco-British War that had begun in 1689.

The temporary naval superiority of France enabled Washington on October 19, 1781, to capture Yorktown, Virginia, the stronghold of General Cornwallis, his most efficient opponent, and win the Revolution, though the British regained a naval supremacy which they never more lost, when, a year later, Rodney defeated the French fleet under De Grasse between the islands of Guadelupe and Martinique, and saved the rest of the Colonial Empire.

By the Treaty of Versailles, in 1783, the thirteen colonies secured their independence ; France received Tobago in the West Indies, Senegal and Gorée in Africa, and her lost trading ports in India ; Spain obtained Florida and Minorca.

But the total effect of the loss of the British colonies was momentous. The schemes of George III to revive the personal power of the sovereign were definitely checked, the evils of the mercantile system were exposed and the centre of imperial interests was shifted to the Far East, to the increasing importance of India.

Moreover, the nineteenth century was to see a relaxation of the severity of colonial control, and a more intelligent treatment of colonies which was to prepare the way for the great self-governing dominions, while out of the revolting colonies grew another English-speaking nation, with the same British conception of law and freedom.

If the rebellion of the American colonies had produced only the United States, it would not have been a calamity even to the British Commonwealth.

The loss of the American colonies was partly due to the aimless and inefficient leadership of the British Government in the years before the war. The year 1783 marks the coming into office of the younger Pitt, whose integrity, energy, and youthful optimism (he was only twenty-four when he became Prime Minister) were as valuable to Great Britain, as had been the qualities of his father forty years before.

Six years after the thirteen colonies left the Empire, began the severe test of the French Revolution, culminating in a world-struggle for naval and commercial supremacy, which resulted in an unqualified victory, consolidated former conquests, and added to the strategical value of the imperial fabric.

The reform of the Government and finances of France which characterized the early stages of the French Revolution was not received in England with hostility. Pitt himself regarded the movement with favour, but the contagious radicalism of the French extremists led to such tension that, in February, 1793, France finally declared war on Great Britain, and her old rival and new ally, Holland.

In 1793 and 1794 Great Britain accomplished little against the weak inefficiency of the Directory that succeeded the terrible effectiveness of the Reign of Terror. In 1797, hostilities were temporarily suspended by young General Bonaparte's crushing defeat of Austria in Italy, but again renewed in 1798 with his expedition to Egypt. In 1799 a coalition was formed against Bonaparte, who had now re-organized the Republic as a Consulate, with himself as First Consul. Two years later the coalition was broken up, and in 1802 Great Britain and France signed the Peace of Amiens. Within thirteen months the two nations were again at war. From 1804 to 1813 England stood out often to all intents and purposes alone against the military genius of the unscrupulous and overweeningly ambitious Napoleon, determined to build an empire in Europe on the basis of military power.

For a time Napoleon, since 1804 hereditary Emperor of France, continued to win victory after victory. His armies ranged from Spain and Portugal to Moscow and Berlin. In 1811, at the height of his power, all Europe was his Empire.

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Only Turkey, Russia, Portugal, Sweden and Great Britain did not own his sway. It was the sense of nationality in peoples whom he had ill-treated, and the wealth and sea-power of Great Britain that finally bore him down.

In 1814 he was driven back to France, beaten, and banished to Elba. And though he escaped and returned, and made a final effort to recover his position in the "Hundred Days" of 1815, he was defeated at Waterloo, and the lonely island of St. Helena—a possession of the English East India Company—became the last home of one who had hoped to conquer the world.

Three things stand out in this tremendous struggle.

The first is that the war was won mainly by British sea-power. On at least three occasions the British Navy achieved a decisive victory. In 1797 the plan of the French to invade Great Britain with the aid of the Spanish and Dutch fleets was frustrated by the defeat of the Spanish off Cape St. Vincent, and of the Dutch by Admiral Duncan off Camperdown. In 1798 the famous Battle of the Nile limited Bonaparte's efforts in the East to a fruitless expedition to Egypt and Syria, and saved India; and finally, in 1805, Nelson's Trafalgar made Great Britain "inviolate" from attack, and shifted the ground of opposition to an attempt to exclude British commerce from the continent of Europe.

The second outstanding aspect of the conflict is the commercial duel between the two empires. In this quarrel, Great Britain had from the first an outstanding advantage. Her wealth had been so augmented by the industrial revolution in the closing years of the eighteenth century, and accelerated by the industrial output demanded of a fighting nation and by her monopoly of ocean commerce through naval control of the sea, that the attack of Napoleon was ineffectual. The long stretch of irregular European coast that under his "Continental system" Napoleon had to watch with constant vigilance, was occupied by peoples dependent for their comfort and needs on British goods, with whom his restrictions only engendered ill-feeling. Decrees on one side were merely followed by Orders in Council on the other, under which, finally, in November, 1807, all ships going to the Continent had, both going and coming, to pay charges practically equivalent to an import duty.

So, in spite of the inclusion of Spain, Holland and north-western Germany within the system, the system did not work. Napoleon could not find the necessary military force. By 1805, as we have seen, Britain had swept all rival navies from the sea, and after 1807, by the use of Heligoland as a base and neutral vessels to carry her goods, she could supply the Continent at her will. Even in France itself smuggled English produce undersold French materials. The fateful march to Moscow was due to the refusal of Russia to close her ports to British imports, and when the Russian disaster came, Napoleon's old enemies took heart, joined against their common foe, and in 1813 defeated him in the Battle of the Nations at Leipzig. Two years later came Waterloo.

The third feature of the war, especially between 1806 and 1812 was the crushing of neutrals. To grant the freedom of the sea to a neutral carrier only tended to weaken the commercial measures aimed at the enemy. Consequently, every neutral had to take sides. Even the United States was dragged into war with Great Britain, as a result of the Orders in Council.

The actual additions to the British Empire between 1793 and 1815 are of great importance. We need only consider those that she holds to-day. In the first year of the war the British Navy took Tobago in the West Indies. In 1794 St. Lucia surrendered. After the formation of the Batavian Republic in 1795 the Dutch colonies were open to attack, so that the Dutch possession of Ceylon was immediately seized by an expedition from Madras ; while in 1796 part of what is now British Guiana was taken, and the important strategical position of Cape Colony occupied. Of the Spanish possessions in the West Indies, Trinidad was captured in 1797.

By the terms of the Peace of Amiens in 1802 Great Britain kept only Ceylon and Trinidad, but, after the re-opening of war, the other West Indian islands were quietly retaken, and in 1806 Cape Colony again became British—this time to be held in permanence.

At the Congress of Vienna, when a presumably final disposition was made of the problems arising out of the

downfall of Napoleon, to the possessions enumerated above were added Mauritius in the Indian Ocean and Malta in the Mediterranean.

The sum total of all these accretions to the Empire do not compare in size with the acquisitions that followed the Seven Years' War, nor do they compensate for the losses consequent on the American Revolution. But from a military point of view they are of great importance, and it must be remembered that during this period the Indian Empire was consolidated, the west coast of Canada was surveyed, and the settlement of Australia was commenced. The new Colonial Empire was at hand.

In 1825, ten years after Waterloo, the Empire of Great Britain was already " one on which the sun in its daily course never sets," the only empire of importance in the world, an empire of which any nation might be proud. Yet, strangely enough, the general attitude of the British Public to their overseas possessions was one of " indifference tempered by uneasiness."

The reason for this dissatisfaction was twofold. In the first place, the alien and coloured population of the colonies, French in Canada, Dutch in Cape Colony, negro in the West Indies, had not yet settled down to acceptance of British control, and the utilization of Australia as a dumping ground for criminals had caused the term " colony " to " stink in the nostrils of self-respecting men."

In the second place, when post-war retrenchment was all the cry, colonial establishments, which often provided jobs for placemen, were regarded as " productive of heavy expense to Great Britain, but of nothing else." The statesmen of the period thought of the colonies in terms of financial returns, and their views were endorsed in much of the economic literature of the time. If colonial trade brought no direct monetary advantage, and the colonies themselves were a source of continual expense to the British nation, they should be relinquished. By 1830 indifference might well have crystallized into chilling neglect, had not a new school of " Colonial Reformers," honouring the colonies, fostering the colonies, proud of the colonies, come into being. These reformers were recruited mainly from the

philanthropists of the period, anxious to find a solution for domestic problems at home.

The Industrial Revolution had heralded a startling increase in the population of Great Britain. Between 1650 and 1750 her inhabitants had grown from $5\frac{1}{2}$ to $6\frac{1}{2}$ millions (an increase of 18 per cent.), between 1750 and 1800, $2\frac{1}{2}$ millions more had been added (an increase of 38 per cent.), while in 1830 the population was 14 millions, or over twice as many as it had been eighty years before.

Along with this phenomenal growth had come concentration in cities accompanied by pauperism so appalling that, in 1818, more than nine-tenths of the people were found to be dependent on public charity. In the opinion of Malthus, who died in 1834, if population outran subsistence, the only check on further increase was starvation.

Emigration naturally occurred to many as a solution of this serious problem, and as early as 1803 the " systematic colonizer " had begun his work.

The two outstanding pioneers of " systematic colonization " are Lord Selkirk and Edward Gibbon Wakefield. To the former we owe the initial task of sending suitable and successful emigrants to Prince Edward Island and the Red River Valley (now Manitoba); to the latter a scheme of settlement by colonists of the better sort in South Australia and New Zealand, and an intuitive knowledge of the basic principles of right colonial government.

In 1815, 2,081 emigrants left England; in 1850 over 300,000 emigrated. Incidentally, when we think of unemployment to-day, we must not forget that with an addition to her population of 1,200,000 between 1914 and 1920, Great Britain was unable during the war years to send out her annual supply of emigrants—which, before the war, averaged between 250,000 and 400,000.

Many of Wakefield's theories of colonization are now accepted as obvious. He foresaw that the colonies, with the right type of colonist, might eventually provide the food of England, and supply the market for her manufactured goods. The Imperial Economic Conference of 1923 was only trying to interpret this belief in terms of practical politics. He advocated the careful selection of emigrants,

and in season and out of season he preached colonial self-government as against the arbitrary system of " government from a distance—from the windows of Downing Street." In 1924 these ideas are obvious. In his own age they were regarded as strange indeed, except by a small group of disciples.

Luckily, these converts counted, as enthusiasts have counted since the world began. Historians like George Grote, economists like John Stuart Mill, philosophers like Jeremy Bentham, Sir William Molesworth, the chairman of the Transportation Committee, Lord Howick—as Earl Grey, Colonial Secretary—Charles Buller, chief assistant to Lord Durham in the writing of his famous report recommending Responsible Government for Canada, ranged themselves on his side. In two decades propaganda and keenness accomplished the desired result. Political and social indifference to the colonies lessened, and though there were still " Little Englanders " to cavil and decry, the history of Great Britain since the first quarter of the nineteenth century has been the history of the evolution of a commonwealth in accordance with the ideas of Wakefield and his associates.

Our next task is to examine the various parts of the Commonwealth in the light of these new ideals.

(A) The Development of British India.

We have already seen how Clive made the Indian Empire possible. Its foundations were laid by Warren Hastings, his successor (1772–1785). Though the gain of territory during his administration only amounted to the country about Benares, he established such close relations with Oudh that British assistance in native quarrels could readily be furnished, and civil administration gradually introduced into the region of the Ganges Valley. There is no doubt that Hastings' methods were somewhat aggressive and unscrupulous, but, like Clive, he was working for a trading company very intent on financial gain whose wings were, however, clipped severely, in 1784, by Pitt's India Act. This Act brought the Company much more than before under the State, by the establishment of a Board of Control in England and a Governor-General, assisted by a Council of three, in India.

For the next fourteen years after the India Act, there was very little growth of British power in the peninsula, and expansion was not resumed until the governor-generalship of Lord Wellesley, the elder brother of Arthur Wellesley, Duke of Wellington.

Where Clive and Hastings had sowed, Wellesley, masterful and self-confident, reaped. In seven years the Company was paramount in India. The aggressive military policy of Wellesley was largely governed by the fear of Napoleon and French ambition that dominated British thought. Wellesley's first war was with Mysore, whose ruler, Tipu, had not only sought French aid, but had adopted the ideas of the Revolution. In one campaign Tipu was killed, his capital taken and much of his country divided between the Nizam of Haidarabad, an ally of the Company, the Mahrattas and the British.

His next task was the humbling of the Mahrattas. The Mahrattas were a military race, scornful of British rule, controlling Central India from the Nizam's dominions in the south to Oudh and Rajputana in the north, and from Bombay on the west to Orissa on the eastern coast. At this period they consisted of independent confederate states, the chief power being vested in the Peshwas or Prime Ministers, who lived at Poona, some hundred miles south-west of Bombay, and in three hereditary generals, of whom Holkar of Indore and Sindhia, who ruled farther west with a finely disciplined army and the person of the Mogul Emperor in his hands, were the most important.

In 1800 the ruler at Poona died. Sindhia and Holkar promptly tried to add to their dominions at the expense of the new Peshwa, who immediately appealed to the British for aid. The British responded to his call. In four months of 1803 the second Mahratta War began and finished with the great victory of Assaye, and the lands north of the Jumna, with Bihar, were won.

In 1805 Wellesley was recalled, on the ground of his excessive military zeal, leaving his work to be continued nine years later by Lord Moira.

Between 1814 and 1825 the Gurkhas of Nepal—a strip of territory about 130 miles broad, stretching along the Himalayas between Bengal and Oudh, were reduced to a

permanent peace. In 1817 the outcast and desperate Pindaris of Central India were crushed, and finally, in the same year, the Mahrattas, most stubborn of native peoples, were at last defeated. Half the territory of Holkar became British, and the Peshwa's lands were merged in the Bombay Presidency.

The expansion on the north-west was completed in 1826 by Amherst's conquest of Burma.

In sixty years a great peninsula, composed of many peoples and races, and religions, and governments, had been brought under a dominant British rule.

The next great task was the organization of government for the good of the governed, the adaptation of the new conception of responsibility for the Commonwealth to composite India.

The first of the rulers of India to act on the theory that the welfare of the subject peoples was the primary duty of the British, was Lord William Bentinck (1828–1835), to whom we owe the abolition of "*sati*"—the burning of the living widow on her husband's funeral pyre—of *thagi*, an organized system of murder and robbery carried on by brotherhoods of hereditary assassins, and the rigorous suppression of dacoity and of infanticide. These reforms alone would make Bentinck's name prominent in Indian history. In addition, during his term of office, the English language was adopted as the medium of teaching; Indian law was codified; the commercial character of the East India Company was reduced to a minimum. The splendid truth that "his constant study was to elevate the intellectual and moral character of the nations committed to his charge," may be seen on Bentinck's statue in Calcutta.

During the next twenty years the frontier of India was extended to its "natural" limits on the north-west by the annexation of the Punjab in 1849, and on the north-east by the occupation of Lower Burma in 1852. Both these accessions were accomplished during the government of Dalhousie—a Governor-General for whom both the great services in India, civil and military, and also the non-official British public felt a real and lasting enthusiasm.

At the same time Dalhousie assimilated all native feudatory states—including that of Nagpur—in which the reigning

ruler had no natural heirs, annexed the Kingdom of Oudh for serious misrule, originated the Indian railway system, to the doubling of both exports and imports, introduced the telegraph, established a modern postal system, interested himself in scientific forestry, and widened the scope of education by the creation of the three universities of Bombay, Madras and Calcutta.

In 1857 occurred the terrible Mutiny which, with the subsequent transfer of India to the Crown, brings Company rule to a close.

The causes of the Mutiny are many and complex. India had, perhaps, moved forward with too great rapidity. Great political and administrative changes, social and financial reforms, a new economic movement so profoundly affecting the country, had made the natives restless and fearful. The Mutiny itself was a matter of the army. It broke out in May among the mixed sepoys of the southern army stationed at Delhi. These soldiers disliked foreign service, and dreaded any loss of caste. Yet in 1856 an Act had been passed that no recruit was to be taken unless he was willing to serve overseas, and rumour had it that the cartridges for their new Enfield rifles had been greased with the fat of cows and pigs. To the Hindu the cow was sacred, to the Mohammedan the pig was unclean. The revolt soon spread beyond Delhi to Oudh and Bengal, and to some extent into the north-western provinces. In the Ganges Valley especially rapine and murder were rife, for the natives aimed at nothing less than the extermination of the British.

It was only the gallant resource of men like Havelock and Outram and Colin Campbell and Henry Lawrence that saved India.

Immediately after the revolt and its successful repression, India was brought nominally as well as actually under the Crown. The Act of 1858 completed the policy that had been furthered by successive reconstructions of the Company's rights. Henceforth, the Secretary of State for India was to take charge of Indian affairs in place of the President of the Board of Control, and the Governor-General was to be Viceroy. An era of new political demands and economic needs had opened.

(B) The Growth of Canada (1760-1867).

In 1759 Wolfe lost his life in capturing Quebec. In 1763, at the close of the Seven Years' War, the Treaty of Paris ceded Canada to the British. In the same year a Royal Proclamation was issued for the government of Quebec, and General Murray was sent out as the first Governor. For a number of years the Government was "practically chaotic," but the enlightened commonsense of Murray and his successor, Carleton (1766–1796), did much to shape and foster the development of this new British possession.

From the early years of his regime Carleton became convinced that the future of Canada lay in its "peopling to the end of time by the Canadian race," and could not foreshadow the settling of the Dominion with English-speaking folk. In 1774 the famous Quebec Act, which so annoyed the people of Massachusetts, was passed. It provided, in the first place, for the enlargement of the boundaries of the province by the addition of the Labrador coast, and of lands west and south-west to the junction of the Ohio and Mississippi. Secondly, it perpetuated French law and custom and language for French-Canadians. Thirdly, it set up a nominated Legislative Council, subject to veto and without the power of taxation. Much has been said for and against the Quebec Act. At any rate, though it was a compromise, the people of Quebec regarded it as a good measure. Nine years after its passage the American colonies seceded. One of the first military acts of the American Revolution was an attack on Canada. That it did not entirely succeed was not due to conspicuous generalship on the part of the British. However, it finally failed, and Canada became a haven for those who had remained loyal to the British connection. The great majority of these "United Empire Loyalists" were compensated with lands in Canada and Nova Scotia, the western part of which was, in 1784, separated under the name of New Brunswick, to furnish a home for the refugees.

Others migrated to the St. Lawrence Valley, between Montreal and the rich farming land of the eastern townships to the south, while the majority went farther west and formed the nucleus of the province of Upper Canada, or Ontario.

This emigration rendered the Quebec Act obsolete, and called for a clear link between the new settlers and the Mother Country. In 1786 the " ancient and new subjects " combined in an appeal to the King for a free constitution, and, in 1791, Parliament acted by dividing the colony into two provinces of Upper and Lower Canada, and giving to each province representative government, in the shape of a nominated Legislative Council and an elective Legislative Assembly.

The separation of Canada into two parts was very important, but it was unfortunate at a time when the parts of British North America should have been more closely united, and it created racial, religious and economic ill-feeling which has never entirely vanished.

Perhaps, this sentiment was never less than during the war of 1812. The strength and patriotism of the British defence of Upper Canada against American invasion was fully appreciated by their French-speaking neighbours, and racial differences were forgotten, for a time, in the fusion of a common interest.

With the end of the conflict, however, the former causes of trouble soon revived, until finally, in 1837, rebellion broke out in Lower Canada. The revolt never had any chance of success, as the Roman Catholic Church and most of the French-Canadians of social and political standing remained loyal.

However, the constitution of Lower Canada was suspended, and as at the same time an abortive attempt was made by a Radical reform party in Upper Canada to stir up trouble, a commission was sent out in 1838 under Lord Durham to investigate the whole constitutional situation. The Durham Report is one of the most noteworthy landmarks in the history of the Commonwealth. It deals with every phase of the Canadian problem ; it is packed full of wise and pregnant suggestions. It advocates the re-union of Canada by the complete amalgamation of " peoples, races, languages and laws." This alone would make it a memorable document. But it also advises the establishment of responsible government—the mastery of local affairs by subjecting the Executive to the control of the elected Assembly (" a corner-stone on which a single and undivided British Empire may be reared

to abiding strength"); the limitation of Colonial Office interference to Imperial matters, and advocates the Wakefield system of colonization based on the right selection and distribution of future colonists.

The culmination of the Durham policy came in 1840 and 1851. In the former year the two provinces were united; in the latter Lord Elgin, Durham's son-in-law, permitted the Parliamentary party leader to choose his ministers.

By 1854, the last year of Elgin's regime, the Canadian Parliament had developed a number of very notable men, whose efforts during the next twenty years were to be concentrated upon the problem of Federation. The French were ably led by Sir Etienne Taché and Sir George Cartier, while the leader of the English-speaking members was Sir John A. Macdonald, anxious for reform and tolerant of the French, with whom he was willing to work hand in hand.

By 1860, owing to the shifting of the centre of population, political matters were at a deadlock. In 1840 Lower Canada had been full of the grievance that it had a larger population than Upper Canada, but only half the members of the Assembly. Twenty years later the situation was reversed. The representation was the same, but there were 300,000 more people in the upper province. In two years there were five ministries, one side clamouring for representation with population, the other declaring that an excess of population should not be considered any more than so many codfish. Finally, in 1864, both parties coalesced on the principle of Federal government, to include also the north-west territories and the maritime provinces. Meanwhile the maritime provinces had been working towards the same end, and a joint conference of thirty-one representative men, later known as the "Fathers of Confederation," was held at Quebec on October 10, 1864. Their seventy-two resolutions were the basis of the Act for the union of Nova Scotia, Canada and New Brunswick, which was passed by the British Parliament in 1867. The British North America Act gave to the Confederation the name of the Dominion of Canada, and to Upper and Lower Canada the names of Ontario and Quebec. Prince Edward Island and Newfoundland remained outside the Confederation. The latter has

still a separate entity. Prince Edward Island followed its sister provinces in 1873. The Dominion of Canada, however, now stretches from the Atlantic to the Pacific, and has nine provinces, and the Yukon Territory. British Columbia in the extreme west had been leased by the Hudson's Bay Company, a chartered company which for over two centuries had governed the long stretches between Ontario and the Rocky Mountains. On the mainland there was little settlement until gold was discovered in the bed of the Fraser River in 1856. Two years later Vancouver Island received representative government. For a time the two districts, the one a mining region, the other a trading city, remained separate. But, as the two colonies developed, union seemed more and more desirable. Finally, in 1866, Vancouver Island and British Columbia were united under the name of British Columbia, with Victoria, on Vancouver Island, as the capital. Union with the rest of the Dominion came in 1871, on the condition that within two years construction should begin on a railway connecting British Columbia with the charter provinces of Canada. In 1881, the Canadian Pacific Railway reached Vancouver.

Between the settled part of Ontario and Fort Garry (Winnipeg) the country was barren, impenetrable, and difficult of approach. These lands, belonging to the Hudson's Bay Company, were known as Prince Rupert's Land, and the North-West Territory. Settlement was for a long time discouraged by the Company. Only in 1863 did it change its views, and begin to feel that these territories should be under more direct control, either as a Crown Colony, or as part of Canada. In 1867 Russia sold Alaska to the United States and Americans began to talk of uniting all the lands between their own country and Alaska. Two years earlier Macdonald had written :—" If Canada is to remain a country separate from the United States, it is of great importance that they should not get behind us by right or by force and intercept the route to the Pacific."

In 1869, not without objection on the part of the French-Canadian " métis " or half-bred employees of the Company, which culminated in the abortive Riel Rebellion of 1870, Canada paid the Company £300,000 for her lands, and left the trading rights in the hands of their former owners.

In 1870 the Red River territory was organized as a province under the name of Manitoba, though the prairies between Manitoba and the Rocky Mountains were as yet so sparsely settled that they were not formed into the provinces of Saskatchewan and Alberta until 1905. The Yukon territory was organized in 1898.

In 1912 large areas of the unorganized North-West Territories were transferred to Quebec, Ontario and Manitoba. Quebec received the whole of Ungava, except that part of Labrador which belongs to Newfoundland. Ontario was carried to the southern shore of Hudson's Bay, and the Province of Manitoba was extended northward to the 60th parallel of North Latitude, which is also the northern boundary of Saskatchewan, Alberta, and British Columbia. Despite these large additions to the provinces, one-third of the land surface of Canada is still in the North-West Territories.

Well might Macdonald prophesy the growth of Canada to a nation whose " alliance will be worthy of being sought by the great nations of the earth."

(C) The Acquisition of Newfoundland.

Newfoundland was not, in the early days, a very satisfactory field for colonization, though many English fishermen not only sailed to the Banks, but remained there to cure their fish, which was a principal article of diet at home, and much sought after in Southern Europe.

There was, however, no British sovereignty, and constant conflict with the French over fishing rights until 1713, when all sovereign rights were surrendered by France.

Even with this, the French could still fish on the Treaty shore, and as in 1783 the Americans were also given fishing privileges, the island seems in some ways more of an international fishing ground than a self-governing Dominion.

Yet Newfoundland—the senior colony of the Commonwealth—(for even if we do not reckon Gilbert's abortive settlement in 1583 as colonization, a colonizing company was formed in 1610) has had responsible government since 1855, has continued to be wedded to the sea, and has lived its life in its own way.

(D) The Establishment of Empire in Australia.

The delayed interest in Australia and its colonization is due to two reasons. In the first place, for a long time India was amply sufficient for British trade and exploitation. Secondly, Australia was too far out of the way to be considered, until a definite attempt was made to explore the southern seas.

The first real knowledge of Australia comes from the Dutch explorers of the seventeenth century, the most famous of whom was Abel Tasman, who gave his name to Tasmania, which he did not realize was an island, and who found, in 1642, the archipelago which the Dutch authorities called New Zealand, and sailed completely round Australia without ever sighting its shores, though on his return within two years he mapped part of its northern coast. It was Flinders who, in the early days of the nineteenth century called Tasman's "New Holland" Australia, "as more agreeable to the ear, and an assimilation to the names of the other great portions of the earth."

From the point of view of colonization, the most fruitful voyage was that of Captain James Cook in 1769–1770. Cook not only circumnavigated New Zealand, but, being driven north, anchored first in Botany Bay, and then three leagues north, in the harbour of Port Jackson, which is now Sydney, and took possession of the land as far as Torres Strait for England. Before the end of the century (1788) criminals, who could no longer be sent to the thirteen independent American colonies, were being transported to Botany Bay, or rather to "a more suitable site in a cove of the finest harbour in the world," called Sydney—in compliment to Lord Sydney, the Colonial Secretary. The early days of the settlement, and its daughter settlements along the coast, were not easy. The convicts were difficult to discipline, and the aborigines, though not as serious an obstacle as the Maoris of New Zealand or the Indians of North America, were a constant thorn in the side.

For the first twenty years the occupation was confined to the coastal plain, and it was only after Blaxland, in 1813, had crossed the dividing range of the Blue Mountains—to find an abundance of fertile land suitable for sheep raising—that the colony began to develop.

John Macarthur's foresight in bringing " woolled sheep of the Spanish breed " from the Cape of Good Hope in 1797, was a great stroke of luck, as it provided Great Britain with abundance of wool for her growing textile industries. Moreover, sufficient information was now available to start sending out vigorous offshoots from the parent colony of Sydney.

Tasmania—or Van Diemen's Land as it was known until 1853—was the first of these districts to be developed on a large scale. Like Sydney, it had commenced as a convict settlement at Hobart in the southern part of the island in 1804. Like the hinterland of Sydney it was found to be well fitted for the production of wool. The greatest obstacle to its progress was the presence of criminals, the worst of whom were moved on from Sydney, as Sydney grew tired of the evils of transportation, and the colony never really got a fair chance until transportation was abolished in 1853. Of the colonies on the Australian mainland, Victoria in the southern corner began on Port Phillip Bay. The Port Phillip settlements, both at Melbourne and Geelong, grew very rapidly, as there was an abundance of fine grazing land along the coast, and the new settlements were only kept back by being governed from Sydney.

In 1842 the movement for separation began. It was farcical to send men from Melbourne to the Sydney Council who were always out-voted, so the Port Phillip colony accentuated their grievance by electing Earl Grey, the Colonial Secretary, as their representative. At last, in 1851, Victoria became a separate colony and in the same year the discovery of gold changed an insignificant settlement into one of the most discussed places in the world. Queensland, like New South Wales and Tasmania, began with a convict settlement at Moreton Bay in 1824. The true prosperity of Queensland commenced when the sheep owners of New South Wales, looking for pasturage, pushed through to the Darling Downs above Brisbane. After 1840, Brisbane became the port of the sheep industry, and in 1859 Queensland was separated from the mother colony.

Western Australia was too far away to receive much consideration, or to come under the jurisdiction of Sydney. The Swan River Colony, with which it was started in 1829, hung fire for twenty years, until cheap convict labour was

introduced from other colonies trying to rid themselves of the incubus. After this date, though it was prosperous, Western Australia was still remote, and had to wait for its representative institutions until 1890, forty years after they had been granted to the other colonies.

South Australia had been opened up from the Murray River in 1829 and 1830. In 1832 the South Australian Land Company was formed to apply the land theories of Edward Gibbon Wakefield to this unoccupied section, by selling all land at twelve shillings an acre, a reasonable price for many persons, but sufficiently high to prevent everyone from becoming an owner. On these terms, and with the proviso that the colony was to receive a constitution when the population reached 50,000, it was started in 1836. Unfortunately, it went too well at the outset. A foolish governor, Gawler, ran the colony into bankruptcy and drew labour out of the country districts by pushing the development of the new town of Adelaide to excess. It needed all the wisdom of George Grey to place its finances on a stable basis, and divert the population back into the rural areas. Luckily, he achieved his aims and the discovery of copper in 1842 enhanced the success of his administration. In 1851, the people deserved and won their constitution with all the other Australian colonies, except Western Australia. In the same year, the character of Australian development was profoundly modified by the discovery of gold. A peaceful, pastoral country, almost entirely peopled by British, was suddenly inundated with new elements. Between 1850 and 1860 the population of Australia leapt from 400,000 to well over a million. The new colony of Victoria was radically different from the colonies of the old pastoral type. But to the whole continent it was of great value that an out-of-the-way dumping ground for convicts was now on the firm ground of economic development by its production of the two essential commodities of gold and wool. Meanwhile, also, the vast interior was being explored.

It has been no slight achievement to make known the interior of a continent, which is over 1,000 miles long—from Adelaide to the Gulf of Carpentaria—and twice as broad—from Brisbane to Perth. The object of every individual who

plunged into the unknown was to find out the nature of central Australia and to discover practicable ways across the trackless wilderness northward from Adelaide and Melbourne, and westward from Brisbane and Sydney.

After several unavailing but heroic attempts to reach the centre of the continent, by Eyre (1839–1840), by Stuart (1844), by Leichardt (1844–1848), John McDonald Stuart, at a third try, in 1864 crossed the continent from north to south—from Adelaide to the east of Port Darwin—and demonstrated the feasibility of an overland telegraph line, which was actually laid in 1872. When the seven communities of Australia were united into the Commonwealth in 1900, the Northern Territory—as well as the 900 square miles in the Canberra district west of Sydney, allotted for the site of the federal capital—was placed under Commonwealth administration. Norfolk Island, which had been under the control of New South Wales since 1856, also became a Territory on July 1, 1914.

The political relation of Australia to the Pacific Islands began in 1883, when, of her own responsibility, Queensland annexed New Guinea. As, however, the British Government hesitated to ratify her action, Germany, in 1884, assumed possession of the south-eastern portion.

In 1889 the administration of the British portion, known as Papua, was transferred to Queensland, and, on the formation of the Commonwealth, became a subject-territory under the Papua Act of 1905. German New Guinea, as well as the islands of the Bismarck Archipelago, the German Solomons and Nauru, were taken by Australian troops in the early days of the Great War, and administered by The Commonwealth from September 12, 1914. In December, 1920, a Class "C" mandate (see Chapter II) for their administration was given to Australia by the Council of the League of Nations. Nauru, just south of the Equator, important for its wireless station and its phosphate deposits, was handed over under the same class of mandate to Great Britain. New Zealand obtains 16 per cent. of its product, Australia and Great Britain 42 per cent. each.

(E) The Development of New Zealand.

In their first occupation of this group of islands, visited by Tasman in 1642, but defined by Captain Cook a century

and a half later, the British were faced with opposition from the aboriginal population far more serious than that encountered in Tasmania or Australia. The Maoris were warriors to the core, with well-planned fortifications. Consequently, the real colonization of New Zealand did not begin until 1840, when immigrants arrived under the auspices of the New Zealand Land Company. These immigrants were soon placed under imperial control, and the first Governor, Captain Hobson, made with the Maoris the famous Treaty of Waitangi, establishing the full sovereignty of Great Britain over the islands, and confirming the natives in the possession of their lands as long as they wished, with Government supervision of the sale and purchase. On the face of it, this was an excellent act, and has been on the whole most faithfully observed, but it hindered speedy and intensive colonization, inasmuch as the lands were the property, not of the individual, but of the tribe, and the dislike of relinquishment was proverbial. " It is from food that a man's blood is formed, and it is land which grows his food and sustains him. Never part with your land." However, by the middle of the century settlements had been made at Port Nicholson—now Wellington—and New Plymouth on the North Island, and at Nelson (1840–1844), Dunedin, through the Free Church of Scotland (1848), Christchurch, under the auspices of the Church of England (1848–1850), and at other places on the South Island.

The New Zealand Land Company was finally dissolved in 1851. In 1852, the five settlements mentioned above with Auckland, whither Hobson had proceeded in 1840, were united under a constitution. Six provinces were formed, each with a Provincial Council and Superintendent, subject to a Central Government, consisting of a Governor, a Legislative Council nominated by the Governor, and an elective House of Representatives. This provincial system lasted until 1876, when it was abolished and unified government set up in its place.

In 1907, the name of the colony was changed to the Dominion of New Zealand, and ten years later the Governor became the Governor-General. The claim of New Zealand to the title of " Dominion " is real, as she has outlying

possessions in the Pacific in a number of island groups, notably the Cook Islands, whose inhabitants speak a language akin to Maori.

On August 29, 1914, New Zealand forces captured the western portion of the Samoan group, formerly held by Germany, and administered it on a military basis until December, 1920, when, under a Class " C " mandate, it was transferred to her by the Council of the League of Nations. Under the Samoa Act of 1921, the relation of Samoa to New Zealand is much the same as that of the Cook group.

(F) The Establishment of Empire in South Africa.

The southern end of the African continent did not become a self-governing Dominion until 1910, though, as far as discovery and settlement are concerned, it is the oldest of the Dominions. For two centuries it was under the Dutch, and the Dutch element has to-day a widespread influence on the language and life of the country. No other great British Dominion has so large a population of non-British Europeans The discovery of South Africa was, as we have seen, due to Portuguese activity, though, when the Portuguese had mapped out their road to the East, they themselves travelled without a break from St. Helena to Mozambique, and landed —not at the Cape, but at Delagoa Bay—now in Portuguese East Africa.

When the Portuguese monopoly of the East Indian trade ceased, a realization of the importance of the Cape first came to the Dutch, who made Table Bay—thirty-five miles north of the Cape—their first port of call and victualling-station. In 1657, owing to the experience of the survivors from a wrecked ship who had found the land fertile and the natives friendly, a settlement of " free burghers " or " boers " was made by the Dutch East India Company behind what is now Cape Town, which became extremely popular as a port from which to procure fresh meat and green vegetables to ward off the horrors of scurvy. From the beginning, conflict with the natives was almost inevitable. The yellow-skinned aboriginal bushmen, with little sense of property, did not cause much trouble, while the taller dark-skinned Hottentots, though they owned property in flocks and herds, had no military organization, and could not sustain a prolonged war.

On the other hand, the Bantus—the true negro type, to whom most of the African tribes south of the Equator belong—with a strong military sense so highly marked in the native regiments or " impis " of the Kaffirs, the Matabele, the Zulu, were another matter. Contact with the Bantus, however, did not begin until the Dutch had extended their settlements round Cape Agulhas to beyond Algoa Bay and the mouth of the Great Fish River.

In 1779 and 1793 occurred the two first of a long series of Kaffir wars, after the second of which the Boers had to surrender part of their land. Within two years a British fleet, under Admiral Elphinstone, had taken over the colony, and though it was restored to the Dutch by the Peace of Amiens, it was re-taken in 1806, and the British occupation was formally recognized by the Congress of Vienna in 1814. When the colony was thus annexed, it contained 25,000 Boers and 50,000 natives. Both presented a problem. Continuous Kaffir wars were a long tiresome strain on British resources of men and money ; even when they were beaten in hard fighting, the natives often won more than they had lost at the hands of humanitarian politicians, whose attitude the Dutch could not understand or appreciate. The last straw came in 1833, when slavery—the system of cheap native labour in operation on the Dutch farms—was abolished.

From 1834 to 1840 the Boers steadily moved northward in a " great trek " across the Orange River, and north-eastward into Natal. The occupation of Natal, owing to Zulu opposition, was difficult and slow, but the lands beyond the Orange were more easily secured by the expulsion of the Matabele to the territory that now bears their name. In this new country the Boers set up a local assembly or Volksraad with legislative and judicial functions, and appointed a Commandant-General.

The new Government was not entirely effective, and it soon crossed swords with the British Settlement at the Cape, now known as Cape Colony, owing to trouble with the Griquas on its eastern border, who claimed and received assistance from the British. By the middle of the century the Boers, who had tried to escape British rule little more than a decade before, found themselves again a British

dependency under the name of the "Orange River British Sovereignty." The irreconcilables simply moved farther on, to the other side of the Vaal River, where they were reinforced by farmers who had found Natal an undesirable home, cursed by dissension among their own leaders.

Within two years a strange reversal of policy placed both Boer colonies beyond the control of Great Britain. In 1852 the Sand River Convention gave to the Transvaal the right to manage its own affairs without British interference, and in 1864 a similar convention was signed at Bloemfontein, which made the Orange Free State a second self-governing Boer state. Meanwhile, Cape Colony had secured representative government in 1853, to be granted the familiar system of a ministry enjoying the confidence of Parliament—or responsible government—in 1872. It had also extended its borders by the annexation of "British Kaffraria," stretching as far as the Kei River, in 1865, of Basutoland—though this latter became a Protectorate in 1871—and in the same year, after diamonds had been discovered at Kimberley, of Griqualand West, north of the Orange River and west of the Orange Free State.

The Colony of Natal may be considered in a few words. It was declared a dependency of the Cape in 1844; it became an independent colony with a constitution much less liberal than that of its former master in 1856, and was granted responsible government at the end of the century.

By 1870, the approximate white population of Cape Colony was 175,000, of Natal 25,000, of the Orange Free State 60,000, of the Transvaal 50,000.

In the last fifty years South Africa has moved much faster than along the leisurely road of its early days.

The beginning of a more rapid movement came in 1867, with the discovery of diamonds. Within four years Kimberley, and the sterile district of Griqualand West, was on the way to become one of the most important mining centres in the world. The political effect was immediate. In October, 1871, the area, hitherto accepted as part of the Orange Free State, became a Crown Colony, and six years later the Transvaal was annexed, though it was not granted representative government until 1880, just before the Boers declared it an independent republic. The First Boer War,

which followed, created—by the Pretoria Convention of 1881—a "South African Republic," with a British Resident, the right of marching British troops across the country, and British control of foreign affairs. There were many Boers who dreamt and talked of "Africa for the Afrikander from the Zambesi to Simon's Bay."

Meanwhile, however, British control of South Africa was becoming more certain owing to the remarkable interest aroused in Europe by the travels and discoveries of David Livingstone in Eastern and Central Africa. By 1885 a strong movement was afoot among the European Powers for the partition of the Dark Continent. The year previous Germany had declared a Protectorate over what is now British South-West Africa. Very soon the Boers began to spread out into Bechuanaland, between their own states and this new protectorate. But Bechuanaland was the "Suez Canal to Southern Central Africa," and it was accordingly annexed by Great Britain in 1885 to prevent friction between the Boers and the Germans. For similar reasons Zululand, on the eastern side of the Transvaal, was taken in 1887. The Boers were shut in on both the east and the west.

North of the Transvaal, beyond the Limpopo River, was the Mashona country, into which the Matabele had retired, when driven from the Transvaal. In 1888 the British made a treaty with Lobengula, the Matabele, to secure sole interests in his country. In 1889 the British South Africa Company was granted a charter for its development. In 1893, after the Matabele War, Matabeleland, or, as it is now called, Rhodesia, was definitely occupied. It was named after Cecil Rhodes—one of the promoters of the British South Africa Company, master of the diamond industry in Kimberley, and Premier of Cape Colony in 1900.

In 1884, to the discovery of diamonds was added the discovery of gold on the Witwatersrand, south of Pretoria in the Transvaal, which immediately took rank as one of the great gold-producing regions of the world. The effect on the Transvaal of the inevitable "gold rush" was immediate. A poor pastoral Boer republic suddenly became a rich state overwhelmed with aliens ("Uitlanders"), largely British. In almost every way the Boers hampered

the mining industry. Finally, in 1890, they increased the residence qualification for the franchise from five to ten years. By 1895 the Uitlanders had come to an understanding with Cecil Rhodes to overthrow the Transvaal Government with outside assistance. Before plans could be properly worked out on the Rand, the premature Jameson Raid had ended in disaster. The hand of the Boers was much strengthened, and the situation of the Uitlanders went from bad to worse. Finally, in September, 1899, after a declaration by Sir Alfred Milner, then High Commissioner of South Africa, that intervention was necessary to " obtain for the Uitlanders in the Transvaal a fair share in the government of the country which owes everything to their exertions," the Transvaal and the Free State sent an ultimatum to the British, and war was the result. Though both Boer states were annexed in June, 1900, there was more than a year of guerilla warfare, and the Treaty of Pretoria was not signed until June, 1902. The terms were not ungenerous. Both states were transferred to British authority, but within three years both the Transvaal and the Orange Free State were governed by a nominated Legislative Council and a Legislative Assembly, partly elected on a wide franchise. In 1906 the Transvaal, and in 1908 the Orange Free State, were both given responsible government, under former Boer generals. The next movement was towards federation. Finally, at an Inter-Colonial Conference, held at Pretoria in 1908, to discuss railway rates and the tariff, General Smuts moved that a National Convention be called to draw up plans for union. By February, 1909, the Convention had met in Durban and Cape Town and drawn up a Constitution for the Union, which was accepted, first by the four states, and then by the British Parliament. In September, 1909, seven years after the close of the Boer War, the Union of South Africa was an accomplished fact.

In December, 1920, the Council of the League of Nations handed over to the Union, whose troops had effected its conquest, the German territory of South-West Africa under a Class " C " mandate.

(G) Imperial Interests, 1837-1900.

The period of the reign of Queen Victoria, which marks the binding of the British Commonwealth, with all its

diversity, into a close-knit political unit, naturally divides itself into two almost equal parts. The first part has been called "the age of Victorian monopoly." Of possible rivals, the United States was still concerned with domestic matters and with the extension of her western frontier on her own continent. Germany was not yet Germany or able to shoulder external responsibilities. The colonial policy of Holland, Spain, and Portugal had little changed from its original form in their first days of colonization. Even if France was thinking of colonies, she was not as yet interested in the same field as Great Britain. Consequently the British neither hurried nor were anxious. Perhaps the most marked characteristic of the age was the prevalence of humanitarian principles. We have already seen these principles at work in the foundation of Australia, in the attitude towards the Bantu tribes of South Africa. But the most marked victory to the credit of the humanitarian was the abolition of slavery throughout the Empire by the Act of 1833. At the same time increased interest was taken in the condition of the natives in New Zealand, in South Africa, and in India to the creation of a fine moral tone in dealing with native races.

Moreover, the growth of British industry and commerce brought about a fairer economic treatment of the colonies by the reduction of duties on raw materials from foreign countries, and their total abolition, if the goods came from the overseas possessions. By the middle of the century, Greater Britain was essentially a free-trade Empire, with a large measure of local independence in financial matters.

In the field of government, also, there was the same tendency to relaxation. The Reform Act of 1832, which distributed the franchise more equitably in Great Britain, was the prelude to self-government, and to the establishment of the principle that even if certain colonies were not ripe for a full measure of self-government, they should be trained by definite probation for the assumption of the greater privilege, which was to be a further link in the chain that bound them to the Mother Country. So did Tasmania, South Australia, New South Wales, and Victoria achieve their constitutions in 1856. So did New Zealand in 1853,

and Newfoundland in 1855, attain to responsible government—so in 1872 Cape Colony, in 1890 Western Australia, in 1895 the Boer Republics were added successively to the group of self-governing states.

In all these years the problem of defence appeared of no moment until the Crimean War showed the urgent need of the reorganization of the Army, and, as time went on, the transference to the self-governing colonies of their own protection, necessitated the abandonment of certain strategical positions, and the establishment and development of others better suited to imperial needs.

During the next twenty-five years (1850–1875) British colonial policy was more and more affected by her international relations.

In 1863 Italy completed her work of union. In 1870 the Franco-Prussian War gave Europe a new master. In 1877–1878 the Russo-Turkish War almost expelled the Turk from Europe, and threatened the Empire—or a most vital part of it—with a fresh menace.

All these changes tended to enhance the value of the Empire in the eyes of British statesmen, especially in the opinion of Benjamin Disraeli (Prime Minister 1868 and 1874–1880), to whom we owe the purchase of the Suez Canal Shares in 1875—leading to the first occupation of Egypt in 1881—the annexation of the Transvaal in 1877, and the assumption of the government of Cyprus in 1878—and to whom we may give the main credit for the foundation of a new British spirit of imperialism. This new ideal, also, had another motive power. The pride and position of Great Britain had aroused an envy that was bound to create strong rivals. At least five countries of Eurpe made plans, with more or less success, to establish imperial dominions, in the nineteenth century. France, which has to-day—despite the scoffing criticism of Bismarck that she had colonies but no colonists—a great Colonial Empire, had lost everything except a few insignificant and widely scattered ports and islands as a result of the Napoleonic Wars. The first extension after 1815 was on the North African coast, where, before the end of the reign of Louis Philippe (1848), she had acquired Algeria. During the Second Empire she added the Senegal Valley to her small possessions in Equatorial

Africa, and made a beginning in Cochin-China. After the Franco-Prussian War, her statesmen began to suggest colonization as a means of forgetting—if but for a while—the bitter loss of Alsace-Lorraine; so, in 1881, Tunis was occupied, in the nineties Madagascar was taken, and, despite German opposition, a French protectorate was established in Morocco in 1912. Moreover, after some friction, the boundaries between French territory and the Anglo-Egyptian Sudan were defined. To-day France owns more land in Africa than any other nation.

The Russian Empire, until its break-up by the World War, contained the greatest continuous stretch of territory under one Government in the world. The great bulk of Siberia was acquired before 1800, but during the nineteenth century Russia became mistress of the Caucasus region, slowly secured the Kirghiz Steppes and Kurdistan, advanced into Bokhara, obtained Vladivostok on the Japanese Sea as a seaport and terminus for her Trans-Siberian Railway, and absorbed Manchuria.

The next, and in some ways, most amazing advancement was that of Germany and Italy. In both countries imperial consciousness was the logical sequence of unification—imperial development the outcome of the belief, based on observation of rival states, that successful trade and industry is grounded, in part at least, on the possession of colonies.

Before the rise of the new imperialism, Germany had no possessions outside Europe—nor apparently did she desire to range beyond the field of continental politics until 1882. This change of mind was due to three main causes—the protectionist policy lately advocated by Bismarck, the flow of German immigrants to foreign countries, and the acquisition of territory by other states.

In 1882, therefore, when Lüderitz, a Bremen merchant, bought land in what afterwards became German South-West Africa, Bismarck promised him the protection of the German Government, and in 1884 declared the territory a German Protectorate. In the same year a Dr. Nachtigal annexed Togoland and the Cameroons. Though in both actions Germany incurred the ill-will of Great Britain, she was now committed to an aggressive colonial policy, and shortly afterwards sent an expedition to New Guinea which

resulted in the occupation of most of the north-eastern portion of that island and of the adjacent Bismarck Archipelago. The annexation of German East Africa followed in 1886, and by the end of the decade the Marshall Islands and a number of adjacent groups in the Pacific had been added to a growing empire.

Further, when in 1898, the United States defeated Spain, some of the Spanish islands in the Pacific were sold to Germany. At the same time she received part of Samoa and leased for a long term of years from China the port of Kiaochau in the Shantung peninsula. A new colonial empire had marvellously sprung into being.

During the same period Italy had also extended beyond her European frontiers by the occupation of Eritrea on the Red Sea, which was to be the basis of a great Italian empire—to include Abyssinia—in that part of Africa. This empire, however, did not materialize owing to the sturdy opposition of the Abyssinians themselves, and Italy to-day only holds Italian Somaliland to the south-east, Tripoli (renamed Libya) in North Africa, and the Dodecanese Islands off the south-west coast of Asia Minor, which she wrested from Turkey in the war of 1911. Much of the failure of Italy to achieve her ambitions has been due to her inadequate financial resources.

Even the United States had to forswear her policy of isolation after the war with Spain over Cuba in 1898. As a result, Spain lost to the United States the Philippines, Porto Rico and Guam, while Cuba came under the fatherly protection of her greatest neighbour. In the same years the Hawaiian Islands and two islands in the Samoan group, including Apia, the best harbour in the South Pacific, were annexed. American isolation was a thing of the past.

Meanwhile, Great Britain, though at first she was unwilling to add to her colonial burdens, had answered to the zeal for colonization of her rivals. In Africa—mainly, as we have seen, as a buffer between Boer and German, she began by adding first Bechuanaland and then Zululand to her possessions, and gained a foothold in Matabeleland and Mashonaland, which was eventually to become Rhodesia. Farther to the north, she first of all took over the immensely rich region of Nigeria in the west, and, before 1890, brought Uganda and the island of Zanzibar on the east under her suzerainty.

In the Far East also considerable territory was added to the Commonwealth. In 1885 Upper Burma was annexed. As a result of German and British rivalry the island of New Guinea was divided between the two powers. Large portions of the island of Borneo, (Sarawak, Brunei, North Borneo) became British possessions in this decade. Before the end of the century Wei-hai-wei, on the extreme southern end of the Shantung peninsula, was leased from China as a set-off for Kiaochau and Port Arthur. In all, over a million square miles became British between 1880 and 1900. This new British spirit was adequately expressed in the enthusiasm that greeted the jubilee of Queen Victoria in 1887 and 1897, and in the first meetings of Colonial Conferences for the discussion of colonial problems, which were held in both years, and again in 1902, though the enthusiasm was tempered with a certain ill-defined anxiety as to whether the empire—which now covered a quarter of the world's surface, and with the creation of self-governing dominions—free nations within the nation—could now truly be called a Commonwealth—could withstand the challenge of rival European powers.

> " By my house and thy house hangs all the world's fate,
> On thy house and my house lies half the world's hate."

The Great War was the answer to these doubts. As a result of the war, the evolution of the Commonwealth has not ceased ; it has rather been hastened.

As by the Peace of Utrecht in 1713, of Paris in 1763, of Vienna in 1815, so by the Treaty of Versailles in 1919 Great, Britain has again added to her holdings. These additions however, are not to be regarded as organic parts of the Commonwealth, so much as protectorates or " mandates " held by the Empire or by one of its free nations, whose administration is subject to review by the League of Nations. Some of these " mandates " have already been mentioned.

Of the German islands in the Pacific, New Zealand is now responsible for Samoa, Australia for New Guinea and adjacent islands, Great Britain for Nauru.

In Africa, on the west coast the Gambia Colony and Protectorate and the Sierra Leone Colony and Protectorate have not been affected territorially. On the other hand, both the Gold Coast Colony and the Colony and Protectorate of

Nigeria have been slightly enlarged by additions from contiguous German territory, though the bulk of Togoland and the Cameroons has passed under French control.

Before the war British East Africa, now Kenya Colony and Protectorate—which is bordered on the north-west by the Anglo-Egyptian Sudan—had as its southern neighbour German East Africa, beyond which to the south again lay the Protectorate of Nyasaland and the chartered company possession of Rhodesia. German East Africa has now been divided between Belgium and Great Britain, Belgium receiving a small portion which borders on the Belgian Congo, and Great Britain the larger share, under a Class " B " mandate from the League of Nations. It is now known as Tanganyika Territory. The Cape railway, when constructed, can now proceed without difficulty to Cairo, over 6,000 miles of lands under British influence. German South-West Africa is governed, under a Class " C " mandate, by the Union of South Africa.

In the Middle and Near East, arising out of the Treaty of Sevres made with Turkey on August 10, 1920, and not modified by the later Treaty of Lausanne, the intimate connection of Great Britain with Egypt, the Sudan, and Cyprus, is recognized. The present situation as regards Egypt is dealt with in Chapter XIV. At a little earlier date (May, 1920) Mesopotamia (Iraq) was accorded to Great Britain under a Class " A " mandate, while a mandate of the same class has also been undertaken for Palestine, now divided into Palestine proper and Transjordania (Kerek).

Appendix I.

A LIST OF ALL BRITISH POSSESSIONS, WITH AREA, APPROXIMATE POPULATION, AND POPULATION DENSITY.

EUROPE:	*Area in Square Miles.*	*Population.*	*Density of Population to Square Mile.*
The United Kingdom of Great Britain and Northern Ireland with the Irish Free State, the Isle of Man, and the Channel Islands	121,633	47,307,601	389*
Gibraltar	2	20,638	10,319
Malta	118	213,024	1,803
Total	121,753	47,541,263	

*All figures are taken from the Statesman's Year Book (1923).

	Area in Square Miles.	*Population.*	*Density of Population to Square Mile.*
AMERICA:			
Dominion of Canada (Provinces of Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan, with Yukon Territory and North-West Territories) ...	3,729,665	8,788,483	2·4
Newfoundland	42,734	259,358	6·1
Labrador	120,000	3,621	·03
Bermudas	19	20,127	1,059
Bahamas	4,404	53,031	12
Barbados	166	156,312	941
Jamaica (including Cayman Island, Turks Island, Caicos Island) ...	4,431	858,188	194
Leeward Islands (Antigua, Dominica, Montserrat, St. Kitts-Nevis, Virgin Islands)	715	122,242	171
Trinidad and Tobago	1,976	365,913	185
Windward Islands (Grenada, Grenadines, St. Lucia, St. Vincent) ...	516	163,477	317
British Guiana	89,480	297,691	3·3
British Honduras	8,592	45,317	5·3
Falkland Islands (including S. Georgia, S. Shetlands, S. Orkneys, Graham's Land)	7,300	4,273	·6
Total	4,008,998	11,138,035	
AFRICA:			
Union of South Africa (Provinces of Cape of Good Hope, Natal, Orange Free State, Transvaal)	473,089	6,928,580	15
Bechuanaland	275,000	152,983	·5
Basutoland	11,716	498,718	43
Swaziland	6,678	133,563	20
British S.W. Africa	322,000	227,432	·7
S. Rhodesia	149,000	806,620	5·4
N. Rhodesia	291,000	931,500	3·2
Ascension Island	34	250	7·4
St. Helena and Tristan da Cunha ...	57	3,877	68
Gambia	4,134	209,000	56
Sierra Leone	31,000	1,541,311	50
Gold Coast	80,000	2,078,043	26
Nigeria	336,700	18,500,000	55
Togoland (British sphere)	33,700	188,265	5·6
Kamerun (British sphere)	191,130	2,540,000	13
Anglo-Egyptian Sudan	1,014,000	5,850,000	5·7
Kenya	200,000	2,376,000	12
Mauritius	720	385,074	535
Seychelles	156	24,811	159
Nyasaland	39,573	1,201,983	33
Somaliland	68,000	300,000	4·4
Tanganyika	365,000	4,124,447	11
Uganda	110,300	3,660,327	33
Zanzibar and Pemba	1,020	244,025	239
Total	4,004,007	52,906,872	

ASIA :	*Area in Square Miles.*	*Population.*	*Density of Population to Square Mile.*
British India (Administrations of Ajmer-Merwara, Andaman and Nicobar Islands, Assam, Baluchistan, Bengal, Bihar and Orissa, Bombay, Burma, Central Provinces and Berar, Coorg, Delhi, Madras, North-West Province, Punjab, United Province of Agra and Oudh)	1,092,994	247,243,293	226
Native States and Agencies ... ... (approximately 700)	709,555	71,939,187	101
Bahrein Islands	275	110,000	400
Aden (including Perim, Sokotra, Kuria Muria Islands)	10,462	68,500	6·7
British North Borneo	31,106	208,183	6·7
Brunei	4,000	25,454	6·4
Sarawak	42,000	600,000	14
Labuan	28	5,909	211
Ceylon (including Maldive Islands) ...	25,481	4,574,549	181
Cyprus	3,584	310,709	87
Hong-Kong	391	625,156	1,599
Federated Malay States (Perak, Selangor, Negri Sembiker, Pahang) ...	27,506	1,324,890	48
Malay States not federated (Johore, Kedah, Perlis, Kelantan, Trengganu)	23,486	1,123,274	48
Straits Settlements (including Cocos Island and Christmas Island) ...	1,662	883,839	532
Mesopotamia (Iraq)	143,250	2,849,282	20
Palestine	9,000	757,182	84
Transjordania (Kerek)	Unknown	400,000	—
Total	2,124,780	333,110,463	

AUSTRALASIA :			
Commonwealth of Australia (States of New South Wales, Queensland, Southern Australia, Victoria, Western Australia, Tasmania, and Federal and Northern Territories ...	2,974,581	5,510,229	1·9
Papua Territory	90,540	276,888	3·1
New Guinea Territory	106,852	537,000	5
Dominion of New Zealand (including Auckland Islands, Chatham Islands, Cook Islands, Kermadec Islands) ...	104,568	1,232,567	12
Western Samoa Territory	1,235	37,791	28
Fiji	7,083	157,266	22
Tonga or Friendly Islands	385	23,562	61
Gilbert and Ellice Islands	558	39,722	71
British Solomon Isands	11,000	150,675	14
New Hebrides	5,500	60,000	11

AUSTRALASIA—*continued.*	*Area in Square Miles.*	*Population.*	*Density of Population to Square Mile.*
Pitcairn Islands	2	140	70
Nauru Island	8	2,129	266
Starback Island	35	Nil	—
Total	4,117,347	8,027,689	
Europe	121,753	47,541,263	
America	4,008,998	11,138,035	
Africa	4,004,007	52,906,872	
Asia	2,124,780	333,110,463	
Australasia	4,117,347	8,027,969	
GRAND TOTAL	14,376,885	452,724,602	

CHAPTER II

The Organization of the Commonwealth.

In the first chapter we sketched very briefly the development of the British Commonwealth. In 1924 this Commonwealth includes lands on every continent, islands in every ocean, and over 14½ million square miles of territory. It is about four times as large as the United States, larger than any continent except Asia, one fourth of the land surface of the globe. Within the Commonwealth live between 400 and 500 million people, representative of all the great racial divisions. Of these, nearly 70 millions, or almost one-sixth, are of the white race. The Indian Empire, with its population of over 319,000,000, is the home of nearly three-quarters of the population of the Commonwealth.

Furthermore, the lands of the Commonwealth have become British in such a diversity of ways, by settlement, by voluntary cession, by purchase, by lease, by forcible annexation, and are governed with such a variety of governments that the whole fabric is now—to use the words of Sir Charles Lucas—so "illogical, so wholly without parallel in history, so impossible to define, so hard to understand or to explain that to the orderly mind it often appears to be merely a bundle of sticks without a name, redeemed only by the fact that it has grown up not as an artificial product, but along natural lines."

Thus, though the Commonwealth has no common government, no common fiscal or legal system, no common army or navy or air force, no common political machinery or citizenship, no common race or religion or social standards, it is the greatest illustration of self-growth the world has ever seen.

Roughly speaking, the government of Greater Britain may be divided into seven distinct main groups :—

1. The United Kingdom of Great Britain and Ireland.
2. The Self-governing Dominions.
3. British India.
4. Crown Colonies.
5. Protectorates.
6. Chartered Company Possessions.
7. Mandated Territories,

while on the outer fringe of the Commonwealth there is a lesser degree of political jurisdiction in what we commonly know as Spheres of Influence.

While, however, a given possession may, in 1924, fall within one or other of these well-defined groups, political conditions are never static and—especially since 1914—constitutional development, always continuous, has been very rapid.

1. **The United Kingdom.**—The constitutional centre of the Commonwealth, as it is the military, economic and technical focus, is Great Britain (England, Scotland, Wales, and Northern Ireland or Ulster), united under the control of a Parliament sitting in London.

This Parliament consists of three elements—the Sovereign (sometimes called the Crown), the hereditary House of Lords, and the House of Commons, elected on what is practically a universal franchise.

All law-making or *legislative* functions are vested in Parliament. The carrying out of the laws or *executive* powers are in the hands of a Cabinet or small body of individuals chosen from one or other of the two Houses of Legislature, and dependent for their existence on the good will and support of a majority in the House of Commons, given to them by the electorate at the polls. This Cabinet, which has the greatest power in the government of the Empire, is not recognized by law, but it is solely on its advice that the Sovereign acts.

The head of the Cabinet is known as the Premier or Prime Minister.

This form of government in which the Legislative body controls the Executive is known as Responsible Government.

Each member of the Cabinet is in charge of a department of State, for the proper administration of which he and his colleagues are individually and jointly responsible. The

principal departments connected with Commonwealth organization, each presided over by a Secretary of State, are :

The Home Office	...	For Northern Ireland and Great Britain.
The Foreign Office	...	For Spheres of Influence.
The India Office	...	For British India, and the Protectorates of India.
The Colonial Office	...	For the Self-governing Dominions, Crown Colonies, Protectorates outside India, Chartered Company Possessions, and Mandated Territories.

The British Parliament legislates altogether for Great Britain, *i.e.*, for England, Wales, and Scotland ; but as both the Isle of Man and the Channel Islands have their law courts and assemblies, do not send representatives to Westminster, retain their own law and customs, and, in the case of the Channel Islands, a bilingual system, are not affected by laws passed by the British Parliament unless specially designated, and are controlled by a committee of the Privy Council, they may be regarded as self-governing colonies.

The position of Northern Ireland—the six counties of the province of Ulster with the parliamentary boroughs of Belfast and Londonderry—is different. While she has responsible government under the Government of Ireland Act (1920), and her Parliament controls her local government, except for certain " reserved " services, she cannot make peace or war, sign treaties, issue coinage, or grant trade marks, titles or dignities. Moreover, as she continues to send Members of Parliament to London, she has not the status of a self-governing dominion. The Irish Free State, which became a self-governing dominion in 1921, will be dealt with in the next section.

2. **The Self-Governing Dominions.** — The self-governing Dominions are six in number :—

(1) The Dominion of Canada (British North America Act, 1867).

(2) The Commonwealth of Australia (Australia Commonwealth Act, 1900).

(3) The Colony of Newfoundland (Responsible Government since 1852).
(4) The Dominion of New Zealand (New Zealand Constitution Act, 1852).
(5) The Union of South Africa (South Africa Act, 1909).
(6) The Irish Free State (Irish Free State Constitution Act, 1922).

The self-governing dominions are those parts of the Commonwealth to which, owing to the predominance of British stock, the privilege of responsible government has been granted.

It may be noticed that all the self-governing dominions lie between the parallels of 10° and 49°—South Africa between 35° and 10° S., Canada north of 49° N., Australia between 11° and 39° S., New Zealand between 34° and 48° S.—where whites can live and bring up children.

Of the older dominions, Newfoundland has always been a unit. In every other case the present political organization has been brought about by federation.

The form of this federation varies. In Canada and South Africa power is very strongly centralized in the hands of the Federal Government, in Australia it is much more decentralized. The reason is due to history.

In Canada centralization was thought necessary to obviate the possibility of excessive state rights, which over the American border had culminated in the Civil War; and to effectively unite widely separated areas. In South Africa, those who framed the Constitution felt the need of a strong central force to deal with the vexed problems of the native races, customs and tariffs, and education. In Australia, all the states had already been granted responsible government for some years and were unwilling to surrender their powers.

To each of the Dominions is sent a representative of the Crown, whose power is as limited as that of the King in England, and each has a Cabinet as an executive, controlled by the elected Legislature. Each is a free nation within the Commonwealth.

The constitutional status of the Irish Free State is nearly the same as that of her older sisters. Article I of her Constitution reads :—" The Irish Free State shall have the same

constitutional status in the community of nations known as the British Empire, as the Dominion of Canada, the Commonwealth of Australia, the Dominion of New Zealand, and the Union of South Africa, with a Parliament having powers to make laws for peace and order and good government, and an executive responsible to that Parliament." . . . "The law, practice, and constitutional usage governing the relationship of the Crown to the Dominion of Canada shall apply to the Irish Free State," and, lastly, "the representative of the Crown shall be appointed in like manner as the Governor-General of Canada, and in accordance with the practice observed in the making of such appointments."

One possession—Southern Rhodesia—which formerly was part of the possessions of the British South Africa Chartered Company, achieved responsible government on October 1, 1922, and has exactly the same status as a self-governing dominion. It has, however, as yet but a small white population.

Malta also secured, in May, 1921, responsible government, such as exists in the Dominions, for purely local affairs, while matters of imperial concern, affecting the general defence of the Commonwealth, and the position of Malta as an imperial fortress, dockyard and naval base, are dealt with by the Governor, assisted by an Executive Council. Thus two forms of government, united in the person of the Governor, exist side by side.

The setting up of this dyarchy was the response to a very evident desire among the Maltese for a constitution, which under any other conditions it would have been as difficult to grant as to a battleship.

The Dominions are bound to Great Britain in four ways :—

(i) By loyalty to the Sovereign.

(ii) By the racial bond and the common cultural heritage. Only in the five overseas dominions do the white race live in any large numbers.

(iii) By common commercial and economic interests.

(iv) By legal ties.

The economic link is bound to continue, so long as Great Britain remains a manufacturing country and needs raw materials and food supplies from outside, which the Dominions can provide. The overseas possessions maintain Agents-

General or High Commissioners in London to look after the financial and commercial well-being of their citizens. Of recent years an attempt has been made to strengthen the tie. In 1908 Trade Commissioners were appointed by the Board of Trade in each of the overseas Dominions. In 1923 a further step was taken in the meeting of an Imperial Economic Conference, sitting at the same time as the Imperial Conference. There are also various organizations for the diffusion of economic and commercial information and for economic research, among which may be mentioned the Imperial Institute with its committees for the various Dominions and India, and its technical committees for raw materials, mineral resources, Ceylon rubber research, silk production and timbers, the Schools of Tropical Medicine (London and Liverpool), the Tropical Diseases Bureau, the Imperial Bureaux of Entomology and Mycology, and the Currency Boards for East and West Africa.

Legally, there are a number of ways in which the attachment of the Dominions to Great Britain is expressed.

(*a*) Every Dominion has a Governor or Governor-General appointed by the Crown as its representative.

(*b*) Dominion legislation must receive the assent of the Crown through this representative, and must not be inconsistent with any Act of Parliament passed at Westminster.

(*c*) The British Parliament can pass laws for the Commonwealth as a whole, though this right has become more and more inoperative.

(*d*) There is an appeal from the dominions to the Judicial Committee of the Privy Council.

The present attitude of the Dominions with responsible government towards these legal bonds will be dealt with more fully in Chapter XVII.

(*e*) By periodical consultation on matters of imperial moment through the medium of the Imperial Conference (see Chapter XVII).

3. British India.—British India does not come under the Colonial Office, because of its size and because of the great and complicated problems connected with its administration. The present form of government dates back from 1858, when control of the East India Company was

transferred to the Crown, modified by the Government of India Acts of 1915 and subsequent years, passed to embody the Montagu-Chelmsford reforms.

The Cabinet Minister responsible to Parliament for the administration and conduct of affairs in India is the Secretary of State for India, who is assisted at home by an advisory India Council of individuals with recent and expert knowledge of India. In India there is a Governor-General, or Viceroy, representing the Crown, assisted by a Legislative Council and a Legislative Assembly, elected on a limited franchise with a native majority. Further, in nine of the fifteen provinces there are elected Legislative Councils with wide control over certain "transferred subjects"—local self-government, public health, education, etc. In other words, India has attained to representative government, though financial control is left in the hands of the Governor-General. He alone can recommend appropriations, he alone can permit the Legislative Council to vote on or discuss certain parts of the budget; he can, if the Council refuses to consent to a grant, act as if it had been assented to.

4. **Crown Colonies.**—Crown colonies may be distinguished from self-governing dominions, in that they do not have responsible government, and that they fall more or less directly under the control of the Secretary of State for the Colonies. To mark this, there are in the Colonial Office three main departments:—

(*a*) Dominions.
(*b*) Colonies and Protectorates.
(*c*) Middle East—Iraq, Aden, Palestine and Arab areas under British influence.

The Crown colonies are inhabited, for the most part, by backward races, and are as yet unable to govern themselves according to British standards. Where representative government has been introduced, it is due to:—

(*a*) Long historical tradition—Barbados, Bermudas.
(*b*) The presence of natives of considerable political intelligence—Ceylon.
(*c*) The presence of a considerable white population—Kenya.

All Crown colonies have:—

(1) A Governor appointed by the Crown, assisted by

(2) An Executive Council appointed by the Crown, which may include non-official as well as official members.

The higher type of Crown colony has also a Legislative as well as an Executive Council. In its most advanced form the Legislature is of two Houses, the upper appointed by the Crown, and the Lower wholly elected by those inhabitants of the colony who are entitled to vote. Three colonies—Barbados, the Bahamas, and Bermuda, are in this category.

On a slightly lower scale are Crown colonies with a " Lower House " partly elected and partly appointed, which does or does not provide for an official majority.

Jamaica—which had until the end of 1923 a Legislative Council of 29 members—5 *ex officio*, 10 nominated, 14 elected—was a good example of this type of colony. In 1924, Jamaica is to move forward as she will then come back to the status of the first class, a status that she lost in 1866 as the result of a long struggle with the Mother Country on the question of the emancipation of the negroes.

The five colonies of the Leeward Islands have a Federal Executive Council, nominated by the Crown, and a Federal Legislative Council, of whom half are appointed and half elected. At present British Guiana, Cyprus, with an official majority, Ceylon, Fiji, and Mauritius, are also so governed.

Below these colonies are those with Legislative Councils wholly nominated, and with an official majority.

In the western hemisphere the most notable of these are the islands of the Windward Group and Trinidad ; in the eastern hemisphere, Hong-Kong, the Straits Settlements, and many of the colonies of Africa. This is the most common form of Crown colony. In a few colonies, of which Gibraltar and St. Helena are the best illustrations, there is no Legislative Council, and for military reasons the Governor is the autocratic ruler.

5. **Protectorates.**—Protectorates are states or territories governed by native rulers under British protection. By far the greatest number of protected states (over 700) are in India, the most important being Kashmir in the north, Bikanir, Jeypur, Baroda, Indore, Udaipur and Gwalior in

the central west, Haidarabad, Travancore and Mysore in the south. Haidarabad is larger than England and Scotland combined, and has a population of over thirteen millions.

The relation of the native states to British India is not unlike the relation of a subject state to the feudal system of mediaeval Europe. They are not independent so far as foreign policy is concerned ; in return for sovereignty within his own domains, security of tenure and descent and protection against foreign attack, the native ruler accepts a British Resident or Agent to watch over the interests of the central Government. In some of the smaller states the Resident practically governs in the name of the hereditary prince. Moreover, a lawless or inefficient ruler may be deposed, as has happened in the state of Baroda and in 1923 in the state of Nabha. Native rulers may keep a limited military establishment, their contingents being known as Imperial Service troops. Some of these rulers are notably efficient. The Maharajah of Bikanir was one of the representatives of India at the Peace Conference at Versailles in 1919, the Jam of Nawanagar is the spokesman of India on the Council of the League of Nations, and the Maharajah of Alwar was one of the Indian Delegates to the Imperial Conference of 1923. Both Mysore and Bhopal, which has a woman ruler, have a measure of representative government. There is also in India an advisory body known as the Council of Princes.

The relation of the federated and unfederated Malay States to the colony of the Straits Settlements, and of the Protectorates of Bechuanaland, Basutoland and Swaziland, to the Union of South Africa, of Tonga in the Pacific to the High Commissioner of the Western Pacific, is similar to the connection between the native states of India and British India.

In Asia, Sarawak ; in Africa British Somaliland, Zanzibar, Uganda, and Nyasaland, deal directly with the Colonial Office. Sarawak, in the Island of Borneo, is peculiar in that it is governed by a white rajah, Charles Vyner Brooke, a great-nephew of the original James Brooke who first obtained a cession of land from the Sultan of Brunei in 1842.

Uganda and Nyasaland, though technically styled Protectorates, have a form of Crown colony government.

In addition, Gambia, the Gold Coast, Sierra Leone, Nigeria in West Africa, and Kenya in East Africa, are Crown colonies with native protected states in their hinterland. They are consequently known by a double title—*e.g.*, Kenya Colony and Protectorate.

At the outbreak of the Great War, Egypt, which had been a Turkish possession whose hereditary rulers were " advised " by British advisers, became a protectorate. In 1922, however, she obtained the status of an independent sovereign state.

6. Territories under Chartered Company Rule.—Only one British possession, British North Borneo, is administered by chartered companies. After April, 1924, British North Borneo became the last, as Northern Rhodesia then passed out of the hands of the British South Africa Company.

The British North Borneo Company was founded in 1881, for the purpose of governing and acquiring territories in North Borneo. Unlike the great chartered companies of the seventeenth and eighteenth centuries, it does not engage in trade.

Trading syndicates in Africa began in 1886, when the National African Company obtained a charter under the name of the Royal Niger Company, which enabled it to develop and administer lands along the Niger River. This company surrendered its charter in 1899.

Similarly, in East Africa, the Imperial British East Africa Company received a charter in 1888 to administer territories obtained from the Sultan of Zanzibar the year before, but gave it up in 1895. The British South Africa Company really owed its origin in 1889 to the efforts of Cecil Rhodes to establish British rule in the region made known by the exploration of David Livingstone.

7. Mandated Territories.—Certain lands, formerly belonging to Germany or Turkey, were after the Great War transferred to Great Britain or to a Dominion by mandate from the Council of the League of Nations, the Mandatory Powers having been appointed by the Supreme Council of the Allies and the terms of the mandates drawn up by the Mandatory Powers.

These territories comprise :—

In Asia—Iraq and Palestine, belonging to Turkey; in Africa, German East Africa and German South-West Africa, and part of the Cameroons and Togoland; in Australasia, Nauru, German New Guinea and German Samoa.

The mandate for German South-West Africa was accepted by the Union of South Africa; for all German possessions south of the Equator, except Nauru and Western Samoa, by the Commonwealth of Australia; for Western Samoa by the Dominion of New Zealand; for Palestine, Iraq, and Nauru by Great Britain.

The two avowed objects of the Mandatory System, as laid down in the Covenant of the League of Nations, are :—(1) To train and guide a rising people to take its place with the independent peoples of the world; (2) To prevent the economic exploitation of the territory involved or of the inhabitants for the exclusive benefit of the Mandatory Power or its allies. Consequently, the nature of the mandate varies with the stage of development of the people to whom it is applied. Mandates are divided into three classes—" A," " B," and " C."

A.—" Certain communities belonging to the Turkish Empire which have reached a stage of development where their existence as independent nations can be provisionally recognized, subject to the rendering of administrative advice and assistance."

B.—" Other peoples, especially those of Central Africa, are at such a stage that their mandatory must be responsible for the administration of the territory under conditions that will guarantee freedom of conscience and religion, subject only to the maintenance of public order and morals, and the prohibition of abuses such as the slave trade, the arms traffic, and the liquor traffic."

C.—" Territories, such as South-West Africa and certain of the South Pacific Islands, which, owing to the sparseness of their population, their small size, their remoteness from centres of civilization, or their geographical position, can best be administered as integral portions of the territory of the Mandatory Power."

Under this classification, " A " mandates were given for Palestine and Iraq, " B " Mandates for German East Africa,

re-named Tanganyika Territory, and for the British share of the Kamerun (now part of Nigeria) and of Togoland (now part of the Gold Coast), and " C " mandates for German South-West Africa (now British South-West Africa), German New Guinea (now Territories of New Guinea), Western Samoa and Nauru.

Iraq has now obtained her government and forces, and made a treaty with Great Britain, though she still retains our military support, experts and officials. Iraq becomes independent within four years of the signature of the Treaty with Turkey, or on recognition by the League of Nations.

The territory included under the Palestine mandate has been arbitrarily divided by the British Government into two parts—Palestine proper, where it is proposed to establish a national home for the Jews, with one form of government, and Transjordania, or Kerek, with another form.

The two Governments are independent of each other, except for customs and tariffs, but have one High Commissioner in common.

In Palestine there should be an Advisory Council, composed of the heads of the various government departments, and ten " unofficial " representatives of various communities. The Jews themselves have convened an Elected Assembly, which in its turn has elected a National Committee to represent them in their dealings with the administration.

In Transjordania we have set up a " benevolent " despotism with an English Adviser. The " ruler " works through an Executive Council which he appoints himself, subject to the approval of the Adviser. In actual practice, the High Commissioner and Adviser may exercise a veto on any of his actions.

A Class " B " mandate has been, as we have seen, accepted for Tanganyika Territory. Article 3 of the mandate for German East Africa (Tanganyika Territory) is self-explanatory. " The mandatory shall be responsible for the peace, order and good government of the territory, and shall undertake to promote to the utmost the material and moral well-being and the social progress of its inhabitants. The mandatory shall have full powers of legislation and administration."

This states in written form the unwritten theory governing the relations between Great Britain and all her African Protectorates.

In all cases, whatever may be the class of the mandate, whether it is held by the British Government or by a Dominion, certain restrictions are imposed by the League :—

(*a*) No military or naval bases may be built, no fortifications may be erected, no native military force may be raised except for local police and defence.

(*b*) All forms of slave trade must be suppressed, and all slaves gradually emancipated.

(*c*) Forced labour, except under special conditions for an adequate wage, is prohibited.

(*d*) Traffic in arms and ammunition, and the sale of spirituous liquors must be strictly controlled.

(*e*) Labour contracts and conditions must be carefully supervised.

(*f*) Native land customs must be respected, and usury forbidden.

(*g*) Nationals of all states who are members of the League of Nations must have the same opportunity for trade.

Spheres of Influence.—A shadowy relationship is borne to certain states, not under British jurisdiction, whose position gives the British Commonwealth a special interest in their development and attitude. In many cases, this special interest has been accepted and recognized by Allied Powers.

Under this heading we may include Egypt, the native states of Arabia and the Persian Gulf, Afghanistan, Bhutan, Nepal, Tibet. A similar relationship might also have been held towards Persia, had the proposed Anglo-Persian Treaty of 1921 been ratified.

In two possessions, the Anglo-Egyptian Sudan and the New Hebrides, there is a joint government or " condominium "—in the latter case shared by England and France.

Appendix II.

THE GOVERNMENTS OF THE COMMONWEALTH.

A.—The Governments of Great Britain and her Integral Territories (Isle of Man, Channel Islands, Ulster).

1. Great Britain.

(*a*) *Executive* government vested nominally in King and Emperor (the "Crown")—12 and 13 William III, c. 3, Royal Titles Act, 1901. ("George the Fifth, by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the Seas, King, Defender of the Faith, Emperor of India.") practically in

Cabinet (committee of Ministers dependent on support of majority in House of Commons), presided over by Prime Minister.

(*b*) *Legislative* government vested in Parliament of two Houses of Legislature, dating from the middle of the fourteenth century.

(1) *The House of Lords*, consisting of Peers holding their seats by—

(*a*) Hereditary right.
(*b*) Creation of the Sovereign.
(*c*) Virtue of office—Law Lords, English Archbishops (2) and Bishops (24).
(*d*) Election for life—Irish Peers (28).
(*e*) Election for duration of Parliament—Scottish Peers (16).

The full House would consist of about 726 members, but the voting strength (December, 1923) was about 710.

(2) *The House of Commons*, consisting of members representing County, Borough, and University constituencies for England and Wales, Scotland, and Northern Ireland. The present constitution of the House of Commons is as follows :—

	Counties.	Boroughs.	Universities.	Total.
England and Wales	254	266	8	528
Scotland	38	33	3	74
Northern Ireland (Ulster) ...	7	5	1	13
	299	304	12	615

This Parliament is the supreme legislative power of the British Commonwealth.

2. Isle of Man.

Court of Tynwald, consisting of—

Governor, appointed by Crown.

Legislative Council, composed of Lord Bishop of Sodor and Man, 2 Deemsters, the Attorney-General, 2 members appointed by the Governor, and 4 members elected by the Legislative Council (11).

House of Keys (representative assembly of 24 members, elected on property basis by 5 "sheadings" and 4 municipalities). All laws are ratified each year in open "Moot."

3. Channel Islands.

(*a*) Jersey:

Lieutenant-Governor, appointed by Crown.

Bailiff, appointed by Crown, who is President of the States (Legislative Council of 57 members—12 "jurats" elected for life, 10 rectors of parishes, 2 Crown officers, 15 constables (mayors of parishes) and 18 deputies).

The constables and deputies are elected by the ratepayers for three years.

(*b*) Guernsey, Alderney, and Sark:

Lieutenant-Governor, appointed by Crown.

States (Legislative Council) consisting of Bailiff, 12 "jurats" (chosen by indirect election), 10 rectors, 2 Crown officers, 15 delegates of parishes, and 18 deputies elected by ratepayers.

4. Northern Ireland (Ulster). (Government of Ireland Act, 1920.)

Governor, appointed by Crown.

Cabinet.

Senate of 26 members, 24 elected by House of Commons, 2 (the Lord Mayor of Belfast and the Mayor of Londonderry) *ex officio.*

House of Commons of 52 representatives of the six counties of Antrim, Down, Armagh, Tyrone, Fermanagh, Londonderry, and of the Borough of Belfast.

B.—Governments of the Self-Governing Dominions. (The Irish Free State, the Dominion of Canada, the Commonwealth of Australia, the Union of South Africa, the Dominion of New Zealand, the Colony of Newfoundland, and of Colonies with Responsible Government. Malta and Southern Rhodesia.)

1. Irish Free State. (Irish Free State Constitution Act, 1922.)

Governor-General, appointed by Crown.

The Executive. The Executive Council (Oireacht), which is responsible to the Chamber of Deputies, consists of not more than 12 Ministers appointed by the Governor-General, of whom 4 shall be members of the Chamber, and a number not exceeding 8, chosen from all citizens eligible for election to the Chamber of Deputies, who shall not be Members of Parliament during their term of office, unless the Chamber decides that a certain number of these 8, not exceeding 3, may be so.

The Legislature.

(*a*) *Senate* (Seanad Eireann) of 60 members, consisting of 2 representatives elected by the National University, and Trinity College, Dublin, and 56 members elected every three years in batches of 14 from a panel consisting of three times as many qualified persons as members to be elected, of whom two-thirds shall be nominated by the Chamber of Deputies (the lower Legislative House) and one-third by the Senate.

(*b*) *Chamber of Deputies* (Dail Eireann), elected by constituencies, the number to depend on population, not less than one for each 30,000 nor more than one for each 20,000.

All elections are carried out by proportional representation. In the Parliament of the Irish Free State the Prime Minister is known as the President. The first Senate consists of the 4 elected University members, 26 members elected by the Dail, and 28 nominated by the President.

2. Dominion of Canada. (Provinces of Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Saskatchewan, Alberta, British Columbia; North-West Territories, Yukon Territory.)

(*a*) *Federal Government.* (British North America Act, 1867.)

Governor-General, appointed by Crown.

Cabinet.

Senate (nominated for life by Governor-General)—96 in number (Ontario, 24; Quebec, 24; Nova Scotia, 10; New Brunswick, 10; Manitoba, 6; Alberta, 6; Saskatchewan, 6; British Columbia, 6; Prince Edward Island, 4).

House of Commons—number based on proportion of population of each province to population of Quebec—Quebec always to have 65 members. The

proportion is altered at the end of each decennial census. The present number of members is 244 (Ontario, 81; Quebec, 65; Nova Scotia, 14; Saskatchewan, 21; Manitoba, 17; British Columbia, 14; Alberta, 16; New Brunswick, 11; Prince Edward Island, 4; Yukon Territory, 1).

(*b*) *Provincial Governments.*

Lieutenant-Governor, appointed by Governor-General.
Executive Council (provincial Cabinet).
Legislative Assembly.

1. Quebec and Nova Scotia have also a Legislative Council or Upper House, nominated for life by the Lieutenant-Governor.

2. The number of members of the Legislative Assembly varies from 111 in Ontario to 30 in Prince Edward Island.

3. The North-West Territories are administered by a Commissioner, appointed by the Governor-General, and a Council of 4 members.

4. The Yukon Territory is administered by a Commissioner appointed by the Governor-General.

3. Commonwealth of Australia. (States of New South Wales, South Australia, Western Australia, Victoria, Queensland, Tasmania; Northern Territory, Papua, Norfolk Island, and the mandated territory of New Guinea.)

(*a*) *Federal Government.* (Commonwealth of Australia Constitution Act, 1900.)

Governor-General, appointed by Crown.
Executive Council (Cabinet).
Senate (6 elected by each of six States as an electorate for six years).
House of Representatives—elected directly by people of Commonwealth. Number of Representatives, 75 (New South Wales, 27; Victoria, 21; Queensland, 10; South Australia, 7; West Australia, 5; Tasmania, 5).
State Governments. Each State has a Governor appointed by the Crown, an Executive Council, and two Houses—a Legislative Council and a Legislative Assembly.

1. In New South Wales and Queensland the members of the Legislative Council are appointed by the Governor for life; in all other States they are elected for six years.

2. The number of members of the Legislative Council varies from 53 in New South Wales (where it cannot be less than 21) to 18 in Tasmania. The number in Queensland is indefinite.

3. The number of members of the Legislative Assembly, which in every State has a three years' tenure of office, varies from 90 in New South Wales to 30 in Tasmania.

4. The Northern Territory is administered by a Resident Administrator assisted by a Council of Advice, Papua by a Lieutenant-Governor with an Executive Council of officials and a Legislative Council consisting of the members of the Executive Council and three non-official members appointed by the Governor-General, and Norfolk Island by an Administrator similarly appointed.

4. Union of South Africa. (Provinces of the Cape of Good Hope, Natal, The Transvaal, and the Orange Free State; mandated territory of South-West Africa.)[1] (South Africa Act, 1909.)

Federal Government.

Governor-General, appointed by Crown.

Executive Council (Cabinet) of not more than 10, appointed by the Governor-General.

Senate of 40 members, 8 elected by the Legislature of each of the four provinces, 8 nominated by the Governor-General for ten years.

House of Assembly of 134 members (Cape of Good Hope, 51; Transvaal, 49; Natal, 17; Orange Free State, 17).[2]

Provincial Government.

Administrator, appointed for five years by Governor-General.

Executive Committee, elected by Provincial Council.

Provincial Council of 25, or as many more as the number of members the province is entitled to send to the Union Parliament.[3]

[1] For the Government of South-West Africa, see Government of Mandated Territories. The Governor-General of South Africa is also High Commissioner for all territories within the Union beyond the limits of the provinces properly so called. Under these powers he is Governor of Basutoland, he supervises the affairs of Bechuanaland and Swaziland, and up to April 1, 1924, he supervised the administration of the British South Africa Company in Northern Rhodesia. For the Government of Basutoland, Bechuanaland, and Swaziland, see Government of Protectorates. For the Government of Northern Rhodesia, see Government of Chartered Company Territories.

[2] All members of both Houses must be British subjects of European descent. This limitation does not apply to the Provincial Councils.

[3] The Provincial Councils are only allowed to legislate by ordinance in certain subjects specified by the South Africa Act, or in such other subjects as may be delegated to them. These include direct taxation for provincial purposes, borrowing of money for the credit of the province, primary education, hospitals, municipal institutions, local works other than railways and harbours, roads, markets, game preservation and other purely local and private matters. The financial powers of the Provincial Councils may be possibly curtailed in the near future. (See *Round Table* of March, 1924.)

5. Dominion of New Zealand.

New Zealand (with Western Samoa).[1] (New Zealand Constitution Act of 1852.)

Governor-General, appointed by Crown.
Executive Council (Cabinet).
Legislative Council of 40 Europeans and not more than 3 Maoris appointed by the Governor-General.
House of Representatives of 80 members (elected) (including 4 Maoris).

6. Colony of Newfoundland (Responsible Government since 1855).

Governor, appointed by Crown.
Executive Council (Cabinet), not exceeding 9 members.
Legislative Council (24), appointed by Governor for life.
House of Assembly of 36 elected members.

7. Colony of Malta. (Letters Patent of April, 1921.)

Governor, appointed by Crown.
Nominated Council for imperial affairs and defence, consisting of Lieutenant-Governor, Legal Adviser, Rear-Admiral in Charge, Colonel on the Staff i/c Administration and Officer Commanding R.A.F.
Executive Council (Cabinet).
Senate of 17 members. Of these, 10 are " special " members and represent the clergy, nobility, graduates, the Chamber of Commerce, and the Trade Union Council.[2] The remainder are called " general " members, and are elected, 4 from the constituency of Valetta and its environs, and 3 from the remoter parts of Malta and Gozo.
Legislative Assembly of 32 elected members.

C.—The Government of British India.

British India.[3] (Government of India Acts, 1915, 1916, 1919.)

(Comprising the fifteen administrative districts of Madras, Bombay, Bengal, the United Provinces of Agra and Oudh, The Punjab, Burma, Bihar and Orissa, the Central

[1] The Government of Western Samoa will be found under Mandated Territories.

[2] The two clergy members are nominated by the Archbishop of Malta ; the others are elected in pairs by the special classes whom they represent.

[3] *India*, as defined by 52 and 53 Vict., c 63, s. 18, comprises all that part of the Indian peninsula which is directly or indirectly under British rule.

British India includes only those districts subject to British law, and does not include native states. For the Government of Sikkim, Baluchistan, Kalát, Nepal, and the native states proper, see Government of Protectorates and Spheres of Influence.

Provinces and Berar, Assam, the North-West Frontier Provinces, Ajmer-Merwara, Coorg, British Baluchistan, Delhi, and the Andaman and Nicobar Islands.)

(*a*) *Government in England.* Cabinet Minister responsible to British Parliament for conduct of Department (The Secretary of State for India), assisted by

India Council of not less than 8 or more than 12 members, appointed for five years by the Secretary of State. Of these, at least one-half must have served or resided ten years in India, and have not left India more than five years previous to their appointment. Two also must be natives of India. This Council has no executive authority, and merely conducts the business transacted in the United Kingdom in relation to the Government of India.

(*b*) *Government in India.*

Governor-General and Viceroy, appointed by the Crown.

Executive Council of indefinite number of heads of departments, at least 3 of whom must have had ten years' service in India, and one must be a barrister or pleader of not less than ten years' standing.[1]

Council of State of not more than 60 members, of whom 25 are nominated members and 35 elected members, and not more than 20 are officials.

Legislative Assembly of 144 members, of whom 26 are official members ; the President is appointed by the Governor-General, and 103 are elected. Subject to certain restrictions, the Legislature makes laws for all persons within British India, all British subjects within the native states, and all native Indian subjects of the King in any part of the world.

(*c*) *Provincial Governments* (for 9 Provinces—Bengal, Madras, Bombay, Bihar and Orissa, United Provinces, Punjab, Central Provinces, Assam, and Burma).

Governor, appointed by Crown.

Executive Council of not more than 4 members, qualified by twelve years' service in India.

Legislative Council of not more than 20 per cent. of official members and at least 70 per cent. of elected members.[2]

[1] The supreme executive power is vested in the Governor-General in Council, often called the Government of India.

[2] The minimum number of members in each Legislature is :—Madras, 118 ; Bombay, 111 ; Bengal, 125 ; United Provinces, 118 ; Punjab, 83 ; Bihar and Orissa, 98 ; Central Provinces, 70 ; Assam, 53 ; Burma, 107.

These Governments are based on a scheme of dyarchy. Subjects dealt with by the Legislature are divided into "transferred" and "reserved"

The North-West Frontier Provinces, Ajmer-Merwara, Coorg, British Baluchistan, Delhi, and the Andaman and Nicobar Islands are administered by a Chief Commissioner (and) or Agent appointed by the Governor-General.

C. Governments of Crown Colonies.

In all Crown Colonies there is a

Governor appointed by the Crown.

1. Colonies possessing an Executive Council,[1] a Legislative Council, and an elected House of Assembly—*i.e.*, with Representative Government.

   The Bahamas.[2]

   Barbados.[3]

   Bermuda.[4]

2. Colonies possessing an Executive Council, and a partly elected Legislative Council, the constitution of which does not provide for an official majority.

   British Guiana.[5]

   Cyprus.[6]

subjects. "Reserved" subjects are dealt with by the Governor in Council; 'transferred" subjects are dealt with by the Governor acting with Ministers, who are elected members of the Legislative Council, and have charge of certain departments of Government. "Transferred subjects" include local self-government, medical administration, public health and sanitation, education, public works, agriculture, fisheries, co-operative societies, excise, registration, development of industries, adulteration, weights and measures, religious and charitable endowments.

[1] In the Executive Councils of all the Colonies the unofficial members are nominated by the Governor, who is also *ex-officio* President of both the Executive and Legislative Councils.

[2] The Executive Council of the Bahamas has also an unofficial majority. The Representative Assembly contains 29 members elected from territorial constituencies.

[3] The Executive Council of Barbados has an official majority. Barbados has also an Executive Committee consisting of the members of the Executive Council, a member of the Legislative Council, and 4 members of the House of Assembly nominated by the Governor.

[4] The Executive Council of Bermuda has an official majority. Bermuda has a House of Assembly of 36 members. The average number of electors to each representative is 39.

[5] The Executive Council of British Guiana has an unofficial majority. The House of Assembly is styled the Court of Policy. It has 7 official and 8 elected members. For (*a*) imposing Colonial taxes and auditing the public accounts, (*b*) discussing the annual estimates, 6 additional financial representatives are elected, and the whole sit as a Combined Court.

[6] The Governor of Cyprus is styled the High Commissioner. The Executive Council consists wholly of officials. The Legislative Council consists of 6 non-elected officials and 12 elected members—3 chosen by the Mohammedan and 9 by the non-Mohammedan voters.

3. Colonies possessing an executive Council, and a partly elected Legislative Council, providing for an official majority.

Ceylon.[1]

Fiji.[2]

Jamaica.[3]

Federal Colony of the Leeward Islands[4] (comprising the five Presidencies of Antigua with its dependencies, Montserrat, St. Kitts-Nevis, Dominica, and the Virgin Islands).

Mauritius.[5]

Kenya Colony and Protectorate.[6]

Southern Nigeria.

[1] The Executive Council of Ceylon consists of 4 *ex-officio* and 3 unofficial members nominated by the Governor. The Legislative Council consists of 37 members—5 *ex-officio*, 9 nominated officials, 3 nominated unofficial members, 1 Mohammedan member, 2 Kandyan members, 1 Indian member (these 4 are at present nominated), and 16 elected members; of these, 5 represent respectively special interests and communities—viz., the European Electorate (Urban), the European Electorate (Rural), the commercial electorate, the Burgher electorate, and the Low Country Products Association, while 11 represent territorial constituencies.

The Order in Council (1920) provides that the native members may in future be elected. When this takes place the Legislative Council will have an unofficial majority, and Ceylon will pass into Class 2.

[2] The Executive Council of Fiji has 4 official members and 2 unofficial members nominated by the Governor. The Legislative Council contains not more than 12 nominated members (including 1 Indian member), 7 elected members, and 2 native members.

[3] The Executive Council of Jamaica is called the Privy Council. Three of its members are *ex officio*, and the total number, including the Governor, may not exceed 8. The Legislative Council consists of 5 *ex-officio* members, nominated members not exceeding 10, and 14 elected members. Any financial measure can be carried by 9 of the elected members, and no unanimous decision of the 14 can be overridden, except by the veto of the Governor. A new Constitution is now being prepared giving the elected members a majority. Jamaica will then pass into Class 1.

[4] The Federal Legislative Council of the Leeward Islands consists of 8 official and 8 elected members, all of whom must be members of their respective Island Councils. Of all the elected members, 3 are chosen by the unofficial members of the Legislative Council of Antigua, 2 by those of the Legislative Council of Dominica, and 3 by those of the Legislative Council of St. Kitts-Nevis. The official members include the Administrators of each of these Presidencies, and the Commissioners of the Virgin Islands and Montserrat. In each of the Presidencies, except the Virgin Islands, there is also a Local Executive Council with an official majority, and a Legislative Council with an equal number of unofficial and official members.

[5] The Executive Council of Mauritius has 4 *ex-officio* members. The Legislative Council consists of 27 members, 8 *ex-officio*, 9 nominated by the Governor, and 10 elected.

[6] Half the members of the Executive Council of Kenya are unofficial. The Legislative Council consists of 11 elected representatives of the European community and a sufficient number of official members (at least 18) to give an official majority, 5 elected Indians, 1 elected Arab.

4. Colonies[1] possessing an Executive Council and a Legislative Council nominated by the Crown.

British Honduras.[2]
The Falkland Islands.[3]
The Gambia.[4]
The Gold Coast[5] (comprising the Gold Coast Colony, Ashanti, the protected Northern Territories, and British Togoland).
Hong-Kong[6] (with Kowloon and the New Territory).
Nigeria[7] (comprising the Northern Provinces and the British Kamerun).

Nyasaland Protectorate.[8]
Seychelles.[9]

[1] The Colonies in Africa (Gambia, the Gold Coast, Nigeria, Nyasaland, Uganda, Sierra Leone) have a comparatively small area in the Colony proper, but a much larger area under the rule of native chiefs, comprised in the Protectorate, for which the Government of the Colony is responsible.

[2] The Executive Council of British Honduras consists of 3 *ex-officio* and 3 appointed members. The Legislative Council has an unofficial majority of 7 unofficial to 5 *ex-officio* unofficial members. If the principle of election were applied to the unofficial members, British Honduras would automatically pass over into Class 3.

[3] The Executive Council of the Falkland Islands has 3 official and 1 unofficial member. The Legislative Council is made up of members of the Executive Council and 2 unofficial members.

[4] There is an unofficial majority in the Executive Council of the Gambia. The Legislative Council consists of 2 *ex-officio*, 3 official, and 2 unofficial members.

[5] The Executive Council of the Gold Coast is purely official. The Legislative Council consists of the members of the Executive Council, 7 other *ex-officio* members, and 9 unofficial members—viz., 3 Europeans, 3 Paramount Chiefs, and 3 other members of the native community.

The Governor of the Gold Coast is also Governor of Ashanti and the Northern Territories, which are administered respectively by Chief Commissioners under their own laws. For the Government of Togoland, see Government of Mandated Territories.

[6] The Executive Council of Hong-Kong has 3 official and 3 unofficial members. The Legislative Council consists of 7 official and 6 unofficial members, of whom 4 are nominated by the Governor (two being usually Chinese); 1 is nominated by the Chambers of Commerce, and 1 by the Justices of Peace from their body.

[7] The Executive Council of 9 officials is common both to the Colony and the Protectorate of Nigeria. The Nigerian Council for the Protectorate consists of 11 members of the Executive Council, 12 *ex-officio* members (European), and 13 unofficial members, of whom 6 are natives (5 being Paramount Chiefs). The Legislative Council for the Colony has 6 official and 4 unofficial members. For the Government of the Kamerun, see Government Mandated Territories.

[8] The Executive Council of the Nyasaland Protectorate is purely official. The Legislative Council consists of the 3 members of the Executive Council and 3 unofficial members.

[9] The Executive Council of Seychelles is purely official. The Legislative Council consists of the 4 members of the Executive Council and 3 unofficial members.

The Colony and Protectorate of Sierra Leone.[1]
The Straits Settlements (comprising Singapore, Penang and Malacca).[2]
Trinidad and Tobago.[3]
Uganda.[4]

The Windward Islands [5] (comprising Grenada,[6] St. Lucia,[7] St. Vincent[8]).

5. Colonies without a Legislative Council.

Aden (including Perim and Sokotra).[9]
Gibraltar.[10]
St. Helena[11] (with Ascension Island).

[1] The Executive Council of Sierra Leone is purely official. The Legislative Council consists of the members of the Executive Council, less the Controller of Customs, and 4 unofficial members. The Governor of Sierra Leone is also the Governor of the Protected Territories outside the Colony proper.

[2] The Executive Council of the Straits Settlements is purely official. The Legislative Council consists of 11 official and 8 unofficial members, of whom 2 are nominated by the Chambers of Commerce of Singapore and Penang. The Governor of the Straits Settlements is also Governor of Labrian, which is administered as a separate Settlement by a Resident High Commissioner, of the Protectorate of Brunei, and of the Federated and Unfederated Malay States.

[3] There is one Governor and Joint Council for Trinidad and Tobago. The Executive Council consists of 7 members, 3 of whom are *ex officio*, 3 nominated officials, the other being a nominated unofficial member. The Legislative Council for Trinidad consists of 10 *ex-officio* members, and such other unofficial members—at present 11—as the Governor may appoint.

[4] The Executive Council of Uganda consists of 4 *ex-officio* members and such other officials and such other persons not holding office (unofficial members) as the Governor may appoint. The Legislative Council is constituted on a similar basis.

[5] There is a common Governor for the Windward Islands, a common audit system, and a common Court of Appeal, but no common Legislature laws, revenue, or tariff. Each island has a resident Administrator who is also Colonial Secretary.

In all the islands the Executive Councils consist of 3 *ex-officio* and 3 unofficia members. Instruments necessary to provide for the introduction of elected representation in the Council of the Windward Islands have been drafted.

[6] The Legislative Council of Grenada consists of 6 official and 7 nominated unofficial members.

[7] The Legislative Council of St. Lucia has 5 official and 5 unofficial members.

[8] The Legislative Council of St. Vincent has 4 official and 5 unofficial members.

[9] Aden is presided over by a Resident, who also commands the Garrison troops.

A small subsidy is paid to the Sultan of Keshin for the occupation of Sokotra.

[10] In Gibraltar the power of legislation is vested in the Governor, who is also the General Commanding the Garrison.

[11] There is an Executive Council in St. Helena, consisting of the Governor, the Officer Commanding Troops, and 3 unofficial members. As there is no Legislature, the Governor makes ordinances, though power is reserved to legislate by order of His Majesty in Council.

Ascension Island, formerly under the Admiralty, was transferred to the jurisdiction of St. Helena in November, 1922.

D. Governments of Protectorates.

1. *Native States in India, under the jurisdiction of the Governor-General of India*, comprising Assam State (Manipur), Baluchistan States, Baroda State, Bengal States, Bihar and Orissa States, Bombay States, Central India Agency, Central Provinces States, Gwalior State, Hyderabad States, Kashmir State, Madras States (Cochin, Travancore), Mysore State, Agencies and Tribal Areas of North-West Frontier Provinces, Rajputana Agency, Sikkim State, and States of the United Provinces.[1]
2. *Native States in Malaya, under the jurisdiction of the Governor of the Straits Settlements*[2] (comprising the Federated Malay State of Perak, Selangor, Negri Sembilan (nine States), and Pahang,[3] the unfederated Malay States of Johore, Kedah, Perisl, Kelantan and Trengganu,[4] and the Sultanate of Brunei[5]).
3. *Native States in South Africa, under the jurisdiction of the Governor-General of the Union of South Africa*[6] (comprising Basutoland, Swaziland, and the Bechuanaland Protectorate).[7]

[1] The total number of native States in India is about 700. Many of the Provinces contain several large and a considerable number of smaller States. There are, for instance, 150 States in Central India, 21 in Rajputana. The control exercised by the Government of India varies in degree, but all the States are governed by their own Princes, Ministers, and Councils, and all possess an adviser (Resident or Agent) appointed by the Governor-General of India. The Native Princes have no right to make war or peace, or to send ambassadors to each other or to external States; they are not permitted to retain a military force above a certain specified limit; no European is allowed to reside at any of their courts without special sanction; and the Government of India can assume control in case of misgovernment. Within these limits the more important Princes are autonomous within their own territories. Some of them pay an annual fixed tribute. The Council of Princes, established in February, 1921, is a permanent consultative body to discuss matters relating to treaties, and affairs of imperial or common concern.

[2] Each of the Federated Malay States is governed by a Sultan (in Negri Sembilan he is known as a Yam Tuan), who is assisted by a British Resident and other officials. There is also a Federal Council "for the joint arrangement of all matters of common interest to the Federation or affecting more than one State, and for the proper enactment of all laws intended to have force throughout the Federation or in more than one State." This Council consists of the High Commissioner (as President), the four Sultans, the four Residents, the Legal Adviser, and four unofficial members nominated by the High Commissioner. Heads of one or two public departments may also be members if there is an equal counterpoise of unofficial members.

[3] In his relation to the States the Governor is styled High Commissioner.

[4] Each of the Federated Malay States has a British Resident who is known as the Adviser, and other British officials. The Sultan of Johore has also a Native Minister, the Sultans of Kedah and Perlis native State Councils, of which the Adviser is a member.

[5] There is a British Resident at Brunei to assist and advise the Sultan in the work of administration.

[6] In his relation to Basutoland the Governor-General is known as Governor, in his relation to Bechuanaland and Swaziland as High Commissioner.

[7] In Basutoland, in Swaziland, and the Bechuanaland Protectorate the administration is vested in a Resident Commissioner, the Legislative authority, which is exercised by proclamation, being possessed by the High Commissioner.

4. *Native States in the Pacific, under the jurisdiction of the High Commissioner for the Western Pacific* (comprising the Gilbert and Ellice Islands Colony, Ocean Island, the Gilbert and Ellice Groups, the Union Groups, Fanning and Washington Islands and Christmas Island,[1] the British Solomon Islands Protectorate,[2] Tonga,[3] the New Hebrides,[4] the Phœnix Group and Pitcairn Island.[5]

5. Sarawak.[6]
Somaliland.[7]
Zanzibar.[8]

E. Governments of Territories administered by a Chartered Company.

British North Borneo[9] (British North Borneo Company).
Northern Rhodesia[10] (British South Africa Company).

[1] In most of the islands of this group the native chieftains have ceased to exist, but the Government is in the hands of native magistrates. There is a British Resident Commissioner in the Gilbert and Ellice Islands Colony, and British District Officers in the islands of this group and on Fanning Island.

[2] There is a Resident Commissioner at the capital of the Solomon Islands group, and District Officer on other islands.

[3] Tonga has a native Sovereign, a native Parliament, and a Privy Council of 9 officials, all of whom are natives with the exception of the Chief Justice, the Auditor-General, and the Minister for Finance. The Queen, who presides over the Council, has expressed her intention of introducing responsible government.

[4] See Governments of possessions held under a Condominium.

[5] Pitcairn Island has a Chief Magistrate, descended from one of the "Bounty" mutineers.

[6] Sarawak is the only Protectorate with a British ruler. The Rajah, Charles Vyner Brooke, is a great-nephew of the original James Brooke, to whom the Sultan of Brunei ceded the territory. The British Government does not interfere with the internal administration of the State, but determines any questions that arise as to the succession and the control of foreign relations, and has the right to establish Consular offices in the territory. British subjects to have most favoured national treatment, and no part of the territory can be alienated without the consent of His Majesty's Government.

The Rajah is assisted in England by an Advisory Council, consisting of the heir (the Tuan Muda), 9 other members, 2 of whom have been residents in the Protectorate, and in Sarawak by a Supreme Council of the Tuan Muda, 2 of the Residents, and 5 native Chiefs.

[7] Somaliland is administered by a Governor and a number of District Commissioners.

[8] The Government of Zanzibar is administered by a High Commissioner and British Resident. There is also an Advisory and Consultative Protectorate Council, of which the Sultan is President, and the British Resident an *ex-officio* member and Vice-President, consisting of 3 official and 4 unofficial members, of whom 1 is an Arab and 1 an Indian.

[9] The administration of North Borneo is vested in a Court of Directors of the Company in London, appointed under Royal Charter, and the Governor and Civil Service appointed by them, with the approval of the Secretary of State for the Colonies.

[10] The administration of Northern Rhodesia is vested in a Board of Directors of the Company in London, and an Administrator and Civil Service appointed by them, with the approval of the Secretary of State for the Colonies. On April 1, 1924, Northern Rhodesia became a Protectorate with the status of the Crown Colonies in Class 2.

F. Governments of Mandated Territories.

(*a*) *Under Class "A" Mandate :—*

Iraq.[1]
Palestine.[2]
Transjordania[3] (Kerek).

(*b*) *Under Class "B" Mandate :—*

Cameroons.[4]
Tanganyika Territory.[5]
Togoland.[6]

[1] Mesopotamia (Iraq) is now an Independent Kingdom. Under the terms of the mandate given by the League of Nations, the Government of Iraq—since the election of Feisul, third son of the King of the Hedjaz, as King, and the ratification of the Anglo-Iraq Treaty—has been vested in the King and the Iraq Cabinet, presided over by the Najib of Baghdad. The British High Commissioner acts as adviser to the King, and each department of State has also a British adviser attached to it.

[2] The mandate for Palestine contemplates the establishment of a National Home for the Jewish People, in accordance with the Balfour declaration of November 2, 1917. The representative of the Colonial Office is a High Commissioner who has set up an Advisory Council consisting of the heads of the principal Government departments and 10 unofficial members (4 Moslems, 3 Christians, and 3 Jews). The Jews have also convened an Elected Assembly, which in turn has elected a National Committee to represent the Jewish population of Palestine in its dealing with the Administration.

There is also a Zionist Executive representing the World Zionist organization, which is recognized by the British Government and the Palestine Administration. It was proposed to set up an Executive Council and a Legislative Council of 25 members, 10 of whom were to be officials and 15 unofficial. Of the unofficial members, 12 were to be elected and 3 nominated—1 by the Associated Chambers of Commerce, the other 2 by the Governor—to represent interests insufficiently represented on the Council, 1 of these nominated members being a Christian, 1 a Moslem, and 1 a Jew. Owing, however, to the rejection of this and other schemes by the Arabs, the High Commissioner is governing with the assistance of an Advisory Council composed solely of higher Government officials.

[3] The territories comprised in Palestine to the east of the River Jordan and the Dead Sea are known as Transjordania. They are ruled by Abdullah, a brother of Feisul, King of Iraq, with the aid of an Arab Council. Abdullah is advised by a British representative.

[4] The Kamerun, conquered from Germany in 1916, were in 1919 divided into British and French spheres. In 1920 the British sphere was placed under the Governor of Nigeria, and on October 10, 1921, the League of Nations approved of the division of the country in accordance with the 1919 agreement. The Cameroons is therefore governed as one of the Protected Territories of Nigeria.

[5] The mandate for that part of German East Africa which was allotted to Great Britain—now called Tanganyika Territory—was submitted to and accepted by the Council of the League of Nations in December, 1920. The Territory is governed in a similar manner to other African Protectorates, by a Governor appointed by the Crown, and an Executive Council of 4 officials and 1 unofficial member.

[6] Togoland, which was captured from Germany in 1914, was divided in 1915 into British and French spheres, boundaries being finally adjusted in 1919. In October, 1921, the Council of the League of Nations approved of the 1919 agreement, and of the application of the mandate system to the territories. Togoland is now administered as one of the Protected Territories of the Gold Coast Colony.

(c) *Under Class "C" Mandate:—*

South-West Africa.[1]
The Territory of New Guinea (comprising Kaiser Wilhelm's Land, the Bismarck Archipelago, the German Solomons, and Nauru).[2]
Western Samoa.[3]

G. Governments of Territories governed under a "Condominium."

New Hebrides.[4]
Anglo-Egyptian Sudan.[5]

[1] South-West Africa, under the terms of the mandate issued by the League of Nations on December 17, 1920, is being administered by an Administrator as an integral part of the Union of South Africa.

[2] In December, 1920, the League of Nations issued a mandate for the government of that part of New Guinea formerly belonging to Germany to the Commonwealth of Australia. The government is vested in an Administrator appointed by the Governor-General of the Commonwealth, and responsible to the Minister for Home and Territories, and a Civil Service. The laws of the Commonwealth—supplemented, where necessary, by ordinance—are being brought into force. The country is, to all intents and purposes, a Territory of Australia.

Under the Nauru Agreement Act of 1920, the phosphates produced for any one year in Nauru or Ocean Island are allocated to the United Kingdom, 42 per cent.; Australia, 42 per cent.; New Zealand, 16 per cent. The deposits are worked and sold under the direction, management, and control of three Commissioners appointed by the three Governments.

[3] That portion of Western Samoa formerly in German occupation was assigned to New Zealand under a mandate from the Council of the League of Nations in December, 1920.

The territory is administered by an Administrator appointed by the Governor-General of New Zealand, and responsible to the Minister for External Affairs. There is a Legislative Council of 4 official and not more than 4 unofficial members. The Administrator in Council may make ordinances subject to disallowance by the Governor-General.

[4] The Government of the New Hebrides is based on an Anglo-French convention of 1906. For certain purposes the British and French representatives in the group act in concert, and there is a joint court. The British Resident Commissioner is subordinate to the High Commissioner of the Western Pacific.

[5] The Administration of the Egyptian territory south of the 22nd parallel of latitude depends on an Anglo-Egyptian convention signed at Cairo in 1899. The Chief Administrator is a Governor-General, appointed by Egypt with the consent of Great Britain, assisted in the discharge of his executive and legislative powers by a Council, and all ordinances, laws, and regulations are made by the Governor-General in Council. The British and Egyptian flags are used together. No duties are levied on imports from Egypt, and duties on imports from other countries via the Red Sea do not exceed those levied in Egypt.

There are also in the Commonwealth a number of miscellaneous possessions, comprising islands and rocks not included in any colony or separate protectorate, many of which have no permanent inhabitants, but are leased by the Treasury for guano collecting or coconut planting. Such are :—

1. The Ashmore Group in the Indian Ocean, Bird and Cato Islands in the Norfolk Island Group, Sombrero Island in the West Indies ; Raine Island, Belle Cay and Bramble Cay, of the West Guinea Coast ; Caroline, Flint, Vostoe, Malden, and Starbuck Islands in the Pacific Ocean ; and Gough, Nightingale, and Inaccessible Islands in the South Atlantic.

2. Certain small islands also in the Indian Ocean contain lighthouses maintained by the Board of Trade out of dues levied at Ceylon and Indian ports.

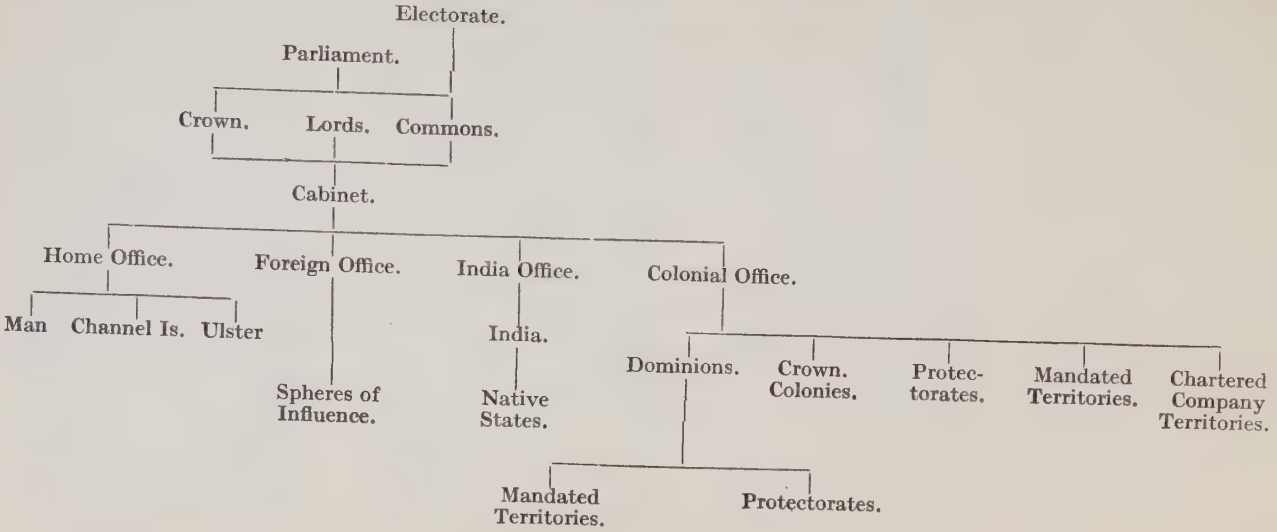
3. The Kuria Muria Islands, on the south-east coast of Arabia, leased from the Imam of Muscat to land the Red Sea telegraph cable.

4. Two uninhabited sandbanks in the China Sea, leased for guano collection are annually visited by Chinese junks to collect turtles.

5. Tristan da Cunha, in the Pacific, an island occupied by the descendants of three shipwrecked sailors. The inhabitants have practically all things in common, and are under the moral rule of the two oldest inhabitants.

Appendix III.

DIAGRAM SHOWING THE POLITICAL RELATION OF THE BRITISH PARLIAMENT TO THE BRITISH COMMONWEALTH.



CHAPTER III

The Resources of the Commonwealth.

The lines of economic development are largely determined by climate and physical features.

Before, therefore, we deal with the material resources of the Commonwealth we must deal with these two essential factors in its economic existence.

The six dominant physical features of the world are its seas, its lakes, its rivers, its mountains, its plateaux, and its great plains.

1. The Sea.—The sea, which covers about three-quarters of the earth's surface, not only exercises a direct influence on the development of the Commonwealth, but also by modifying the climatic conditions, indirectly affects its prosperity. At a very early stage in the history of Great Britain, our island forefathers discovered the immense and valuable stores of the ocean, and exerted all their ingenuity to capture its food. As this discovery led to the building of boats and ships, in order to increase the area of supply, man thus learnt to control the vagaries of the winds and waves.

As soon as control was achieved, the more hardy spirits ventured farther afield to discover and explore new lands. There is no more striking monument to the influence of the sea than the British Commonwealth itself, which is obviously the creation of a seafaring race, gifted with characteristic qualities of courage, enterprise, endurance, resource and love of freedom. The sea which is a link as well as a barrier between the scattered units of the Commonwealth, has made the British build and own more ships than any other people in the world. Three ships out of every five that sail

the seas have been built in British shipyards, and almost half the merchant ships afloat fly the red ensign of the British Merchant Service.

The shallow seas that surround Great Britain itself have their own value. In the first place, they are the resort of a very large number of edible fish. The British Isles rise above a slightly submerged platform thrust out westward from the Continent of Europe, which only descends to the depths of the Atlantic some fifty miles to the west of Ireland. Over this " continental shelf " the sea is no more than 200 yards deep ; the greatest depth of the Straits of Dover is only 60 yards, or less than half the height of St. Paul's Cathedral, and over the Dogger Bank lies an area of 5,000 square miles in the middle of the North Sea, not as deep as the Straits of Dover by 20 yards.

As a result, the cool British seas provide our population with excellent edible fish, which give work to over 100,000 men and boys employed on their capture, and to many more engaged in their preparation for the home markets and for export. Moreover, the two largest and most valuable fishing grounds in the world—the Dogger Bank and the Banks of Newfoundland—lie within easy reach of British ports.

In another respect, also, its shallow seas assist British industries and commerce in many parts of the world. Lying near the shores of a continent, they convert the comparatively small effect of the tidal wave into a large tidal current which carries big ships far inland up the river estuaries. The situation of London, sixty miles from the sea, is partly due to the far-reaching effects of the tide ; and of the ten largest cities of the Commonwealth, nine are seaports.

The sea also makes almost as good a political frontier as the desert, as the coastline is so distinctly and obviously marked, and more easily defended from hostile attack. The separation of the islands of Great Britain from the Continent of Europe has always been a great obstacle to hostile invasion, though in this instance the narrowness of the Channel, never more than 400 miles broad and only twenty miles across at the Straits of Dover, has not prevented the influx of new ideas nor access to the markets of the Continent.

2. Lakes.—Lakes, if sufficiently large, have the same advantages as shallow seas. The great Lakes of Canada abound in fish—make an excellent commercial highway—provide a good political frontier. A similar purpose in a lesser degree is served by Lake Nyasa, which forms part of the boundary between the Nyasaland Protectorate and Portuguese East Africa and Tanganyika Territory.

Small lakes make good natural reservoirs of drinking water—Loch Katrine provides Glasgow with her water supply—or give their water for canals or electric power stations. It is difficult to contemplate the future of the province of Ontario without the hydro-electric power generated from Lake Niagara and Niagara Falls.

If a lake lies in a hot arid region and has no outlet, it is often possible to collect quantities of salt from its shores during its period of greatest evaporation. Stores of salt are procured from the salt pans of the Union of South Africa and from the lakes on the borders of the Thar Desert in India, a country which largely depends for its revenue upon the salt-tax.

3. Rivers.—Rivers provide a cheap and easy means of communication where navigable, and are of inestimable advantage for the construction of railways and roads. In crossing the Pennine Range—the backbone of northern England—the London Midland and Scottish Railway finds an obvious way by the valleys of the Aire and Ribble ; and the railways of Northern Egypt naturally follow the line of the Nile valley.

Rivers do not, however, make really good frontiers between countries, especially where the crossings are easy, unless the bridgeheads on both sides are held by the same nation. The Rhine is not an ideal boundary, however useful it may be for the division of administrative portions of the same territory. On the other hand, the Thames forms part of the boundary of nine counties, and the Murray for a great part of its length divides Victoria and New South Wales.

If the gorges of a river are deeply cleft, its disadvantages as a boundary largely disappear. The Godaveri and the Kistna make a satisfactory frontier between Hyderabad, the Central Provinces, and Mysore.

Wide, open, fertile river valleys have always attracted civilization. The fertility of the Nile and of the Ganges brought into being the splendid culture of the Egyptian and the artistic intelligence of the Hindu.

4. **Mountains.**—Mountains have considerable effect on economic development. If sufficiently high, they make excellent frontiers, clearly marked and easy of defence. In Europe, The Alps, The Carpathians, The Pyrenees, in Asia, the Himalayas present the best example of a strong natural mountain barrier, especially when the difference of the peoples on either side of the range is taken into account. They act, too, as climatic barriers protecting the plain from cold winds, as in the case of the Himalayas, or from rain as with the Rocky Mountains of British Columbia which drain the moisture of the Pacific before it reaches Alberta. By causing the fall of rain and snow, mountains give rise to rivers like the Darling, the Nile and the Indus, that fertilize and irrigate the plains below.

The artesian wells that save the dry plains of Queensland catch the supplies of water that percolate through the porous rocks of the highlands many miles away. Where mountains are steep, the mountain torrent is a valuable source of electric power, and is the motive strength of the cotton mills of Bombay and the gold mines of the Ballarat region. Mountains, too, often possess a great source of wealth in forests and minerals. The heavy rainfall near the sea covers the adjacent slopes with close timber, with kauri pine in New Zealand, with teak on the Western Ghats, with spruce, tamrac, and Douglas fir in British Columbia.

Minerals are found in rich variety where there are successive layers of rock caused by the folding of the earth's crust, as on the Eastern Highlands of Australia.

The great disadvantage of mountains is that—if the ranges are long and high and broken communication and trade is sorely hindered, except along the line of natural passes. This is why the Crow's Nest and the Kicking Horse Passes between Alberta and British Columbia, through which the Canadian Pacific links the east and west of Canada, and the great Khyber Pass, for centuries the main road of invasion and trade across the North-West Frontier of India, assume

such importance. Further, great masses of rocky mountains often breed fierce, anti-social frontier tribes.

5. **Plateaux.**—Plateaux, unless they are broken by rich mineral-bearing strata, as in the Transvaal or Rhodesia, are of little economic importance, except in the Tropics, where, as in the highlands of East Africa, their level above the sea makes them suitable for cattle-rearing and for European habitation.

6. **Plains.**—Great plains, as in the great North-West of Canada, if water can be secured, generally have fertile soil, and make a good agricultural region which can be joined together by easily constructed roads and railways.

Climate is even more important than physical features in determining the lines of economic advance; for climate is not only the chief cause of the variety of plant and animal life found in the world, but also radically modifies the mode of life of the world's inhabitants.

Climate is affected by six main factors—latitude, altitude, distance from the sea, prevailing winds, the position of mountains, ocean currents.

1. **Latitude.**—The temperature of any region depends largely on the angle at which the sun's rays strike the earth's surface. Places within the Tropics receive the rays more directly than places nearer the poles. This greater directness causes more heat concentration, with the result that tropical countries have a much greater mean temperature than the polar regions.

This difference would be even more striking were it not that in the polar regions for six months of the summer, owing to the inclination of the earth's axis to the plane of its orbit round the sun, the sun remains above the horizon, though it is never seen at all during the winter; whereas at the Equator the sun is visible for twelve hours every day of the year. At intermediate points along the line of latitude there is a variation in the length of summer and winter days. The people in London, for instance, which is between 51° and 52° North Latitude—or practically half-way between the Equator and the North Pole—would, if the sky was cloudless, see the sun for 16 hours 34 minutes on the longest days (June 19 and June 20), and under the same conditions on the shortest

days (December 18 to December 26) for 7 hours and 46 minutes. These variations affect the range of temperature. Thus, if we take two points in the Northern Hemisphere—London and Singapore, which lies within 2° of the Equator, we shall find that in London in 1921–1922 there was a difference of 19·9° between the mean temperature of the hottest and coldest months, whereas in Singapore there was a difference of only 2°.

This variation of temperature causes a division of the world on the basis of latitude into :—

(*a*) *A hot belt* (Torrid zone) where—if there is sufficient rainfall—human wants are few and easily supplied, and man tends to become lazy and unprogressive. If there is insufficient rainfall, life would peter out if progressive folk from the Temperate zone did not introduce the saving power of irrigation.

(*b*) *A cold belt* (Frigid zone) in which life is a continual struggle for bare existence, and the long light of the summer is spent in providing food and subsistence for the long dark of the winter.

(*c*) *A temperate belt* (Temperate zone) lying between the two, in which man in combination with nature has attained to the highest and most civilized type. It has already been pointed out that Great Britain and the occupied portions of the self-governing Dominions lie within this belt.

2. **Altitude.**—Altitude reduces temperature, as the higher levels of the earth's temperature are cooler than the lower levels nearer the earth's surface. The average reduction is about 1° for 300 feet of ascent. The mountains of Scotland on the summit of the highest of which, Ben Nevis, the temperature is between 12° and 13° lower than at the sea-level, are, therefore, bleak and inhospitable. On the other hand, the white man can live in the Highlands of Kenya because it is 10° cooler than at Mombasa on the coast.

3. **Distance from the Sea.**—Distance from the sea tends to lessen rainfall and increase the temperature range, inasmuch as land heats and cools more quickly than the sea. There is, thus, in an inland station in India a greater difference between the day and night and summer and winter temperatures than on the sea coast. This is noticeable even in Great Britain. During a heat wave in August, 1923, with

approximately the same high day temperature in York and Scarborough, the nights in York were appreciably cooler. Lack of rainfall and extremes of temperature decrease the area of vegetation and forest and lead to grass land, scrub or even desert, as in the treeless prairies of Saskatchewan and the desert lands of Central Australia.

4. **Prevailing Winds.**—Prevailing winds affect both temperature and rainfall. If they blow from warmer regions they make the lands to which they blow warmer ; if they come from the sea, they come full of its moisture. The general mildness and dampness of our English winters is accounted for by the prevalence of a south-westerly wind, and the heavy rainfall of Natal is similarly due to the constant south-easterlies. The excellence of Newmarket turf and the virility of its horses may be attributed in part to the cold, clean north-easterly blasts of early spring which come, without any obstacle intervening, " direct from Spitzbergen."

The most important of the world's prevailing winds are the Trade Winds, the Westerly Winds, called in the Tropics—from the latitude in which they are usually experienced—the Roaring Forties, and the Monsoons. The Trade Winds blow steadily across the oceans which lie in the warm belt towards the high temperature regions of the Equator from relatively cooler regions on both sides. Their direction is, therefore, north and south.

By the rotation of the earth, they become north-easterly winds in the Northern Hemisphere, and south-westerlies in the Southern Hemisphere. In the regions affected by these winds, the east coast always receives a much heavier rainfall than the west coast. Sydney, the capital of New South Wales, for instance, has an average rainfall of 48 inches (twice as heavy as that of London), whereas at Perth, the capital of Western Australia, in the same latitude, the average rainfall is only $33\frac{3}{4}$ inches. Both areas lie across the line of the Trade Winds, but New South Wales is on the east coast of Australia.

Where the two wind systems meet is a belt of calms, and the rising air, which cools as it rises, deposits the moisture it has gathered in passing over warm seas in tremendous downpours of rain, often accompanied by violent thunderstorms.

This belt of great heat and great rain shifts northward and southward with the midday sun's apparent vertical movement in March and September. Countries lying across or near the Equator such as Kenya, British Guiana and the Straits Settlements, have therefore two fairly well-defined rainy seasons. Farther north, as in the Sudan, or farther south, as in South Africa, the two rainy seasons coalesce in one six months' spell—in the former from April to October, in the latter from October to April—summer months in both countries.

Sailing ships long depended on the Trade Winds for their speedy voyage across the Atlantic and Pacific Oceans, and long dreaded the Doldrums of the hot belt which to the modern coal or oil-driven craft presents no barrier.

The Westerly Winds, or Roaring Forties, blow fairly steadily between 40° and 60° in both hemispheres.

In these regions, the west coast, *e.g.*, of Great Britain and of the South Island of New Zealand, get more rain and have more trees than the eastern side of the same countries.

The steadiness of these westerly winds is often interrupted by cyclones. A cyclone is a centre of low pressure into which the air flows upward from every side with a circular motion, and sets up a condition of variable winds, clouds and rain. It is to cyclones that in Great Britain we owe any high rainfall on our east coast. Cyclones alternate with anticyclones in which the air flows downward and outward. Anticyclones are marked by clear, dry weather.

The furious whirling storms, known as hurricanes in the West Indies, and typhoons in the Far East, are small area cyclones flowing down a very steep gradient in the region of the Trade Winds.

Like the Trade Winds, the Westerly Winds move north and south with the sun. As a result, countries between the latitude of 30° and 40° get the Trade Winds in summer and the Westerlies in winter.

The rainfall on the east side of a continent consequently comes from the Trade Winds in summer. on the west coast from the Westerly Wind in winter. As an example of this phenomenon, we may compare the Adelaide and Melbourne area of Australia with the northern coasts of New South Wales, or the Cape Town region of South Africa with Natal.

Monsoons are seasonal winds affecting the tropical coasts of a great land mass such as India or Northern Australia. During the intense summer heat, the air above the land becomes hot and light, and air from regions which are comparatively cooler is drawn towards the high temperature region. The summer is therefore hot, wet and very trying. In the winter the conditions are reversed and the cold winter is accordingly also dry.

The winter monsoon is generally the local Trade Wind, the summer monsoon its reverse. While the monsoons are changing, cyclones are at their worst.

5. **The Position of Mountains.**—Mountains have considerable influence on winds. If the mountain chain lies athwart the course of the prevailing winds, as does the Rocky Mountain range of British Columbia, the windward side will be very rainy ; but on the far side there will be a dry region drawing its water supply from streams fed by the rainfall and melting snow of the higher levels. Occasionally, however, the dried wind on the eastern side of the Rockies is warmed by compression. Any snow that falls on the dry grassy ranches of Alberta rapidly disappears before the kindly influence of the " Chinook."

If a lofty range runs from east to west, it forms a definite climatic barrier. The warm winds from the Equator or the cold winds cannot cross the obstacle, and reach the country on the other side. There is a marked difference between the temperature of Northern India and Tibet, while the open prairies of Canada are subject to rapid changes, as the wind veers quickly from south to north.

6. **Ocean Currents.**—Ocean currents modify to a great extent the climate of the shores by which they flow. Currents are started by the difference in temperature between the waters of the warm and the cold belt, by steady winds and by the rotation of the earth. In both the Atlantic and Pacific Oceans the Trade Winds drive a current westward along the Equator. When it meets the continents the current branches to north and south, and flows along the eastern shores until it reaches the region of the westerly winds when it is once more blown across the ocean to higher latitudes, and gives to cool seas some of the warmth acquired in the Tropics. By this time it is not so much a current as a

broad ill-defined drift of warm surface water. The North Atlantic drift and the Gulf Stream are distinct features of the North Atlantic Ocean. The fogs of the Newfoundland Banks are the result of passing cyclones drawing the warm, moist air from the Gulf Stream into the cold layers of the Labrador current flowing close inshore. Farther west the presence in latitude 32° 15′ N. of the coral atolls of the Bermudas, is again due to the warm waters of the Gulf Stream from the Strait of Florida. We owe the open winter seaports of Great Britain in the same latitude as the frozen Gulf of St. Lawrence to the same beneficent stream, and, even in latitude 69° 25′ N., 250 miles north of the Arctic Circle the Finnish harbour of Alexandrovsk keeps open all the year round.

In the Great Southern Ocean there is a steady eastward drift under the influence of the Roaring Forties, though cold currents from the Antarctic make themselves felt along the western shores of South America, Africa and Australia, while the warm Equatorial currents wash the south-eastern shores.

Rain and heat are more characteristic features of Natal and New South Wales than of Cape Colony and Western Australia.

With these considerations of climate and physical features in our mind, the Commonwealth may now be divided into a number of natural regions, situate in different parts of the world, in which climate and consequent human activity are more or less in consonance.

Equatorial Lowlands.—These regions are the hottest and rainiest in the Commonwealth. Rain comes down at all seasons, with two well-marked maximum periods, and the range of temperature is very small.

They are generally covered with thick forests of valuable timber—mahogany and ebony, coconut palm, and also produce rubber, coconut oils, and tropical fruits.

The natives, whose wants are easily supplied, are somewhat lazy, and Europeans often find the climate unhealthy, though the Schools of Tropical Medicine have done much to remedy this disadvantage.

Many of these lowlands have great potential development. Malaya is almost an empire in herself, and British Guiana, the coast lands of Kenya, and Nigeria, have a great commercial future.

Tropical Lands.—These are marked by high temperature all the year round, and by a definite rainy season during the time of greatest heat, due either to the monsoons or to the movement of the Equatorial calms ; while the hottest and wettest portion of these tropical lands is like the Equatorial lowlands, the cooler and dryer areas consist of " savannah " or grass lands with clumps of trees. Owing to the absence of extreme heat a native of superior intelligence, sometimes a farmer, sometimes a keeper of flocks and herds, usually lives in these lands. He grows rice, cocoa, bananas, maize, millet and cotton in the lowlands, and tea, coffee and cinchona (the bark of which is the essence of quinine) on the slopes of the hills. He can also grow wheat as a winter crop.

In the higher and healthy parts of the tropical lands a British farmer can settle. He has done so in Rhodesia, and in the Highlands of Kenya, though not in India or the Egyptian Sudan.

Sub-tropical Lands.—These lands have a hot summer and a wet, mild winter. They may be conveniently divided into three areas :—

The East Coast Area.—This, the coolest and airiest part of the sub-tropical zone, lies in the track of the Trade Winds. Natal and New South Wales in this area are suitable for white settlement.

The West Coast or Mediterranean Area.—This area has a hot, dry summer, and plenty of rain from the westerly winds in winter. Its climate is especially suitable for a wheat crop, and grapes, olives, figs and oranges—plants which have small tough leaves or long roots which get down below the hard surface—also flourish. For cotton and rice it is too dry, and the pasture is too poor for cattle and horses.

The British Mediterranean possessions, and the area round Cape Town in South Africa and near Adelaide, Melbourne and Perth in Australia, are of this type. The mean monthly temperature in Cape Town is between 70° and 55°. Between 8 and 9 inches of rain a month falls between May and August, about 2 inches in each of the four winter months—the total rainfall being about 55 inches.

The Interior.—The interior of the sub-tropical lands lacks rain and only grows scrub or poor grass, which shades

off into the desert. Such is the karroo and veldt on the edge of the Kalahari desert in South Africa, or the borderland of the Great Australian desert. Agriculture is only possible under these conditions with irrigation or artesian wells.

Temperate Lands have warm or hot summers and cool or cold winters, according to their distance from the sea. On the east coast the temperature covers a fairly wide range owing to the prevailing westerly winds blowing off the land, and the cold currents from the polar regions.

The heavy rainfall is well distributed over the year, and in winter there is a heavy snowfall and all lakes and rivers are frozen. These lands are covered with the common deciduous and cone-bearing trees of the forest, which provide valuable timber, resin and wood-pulp, while in the clearings agriculture and cattle-rearing is a prosperous industry.

The eastern states of Canada belong to this class.

The west coast area, to which belongs Great Britain, as well as the western side of the South Island of New Zealand and of Tasmania, has a mild, equable climate. At the upper levels, where the rainfall is considerable, grows the finest timber in the world—the Douglas Fir and the Kauri Pine. In the sheltered valleys (as in the Okanagan and Windermere Valleys of British Columbia) pears, plums, and peaches succeed admirably.

The interior regions have a tremendous range of temperature, and little rainfall. (The range is greatest in Manitoba, which has reached a maximum of 101°, and a minimum of minus 50°.) Consequently, except in the cooler area of the conifer, there are few trees. The great grass lands are excellent for cattle-rearing, and on the fertile soil of the Canadian prairies, moistened each year by the snow, there are the largest and best wheat lands in the world.

In the temperate lands are found the greatest abundance of minerals, and here man, best able to live in comfort, has reached his highest stage of development.

The Tundra or arctic shoreland is a frozen waste in winter, and a swamp in summer. Fish, waterfowl and sea blubber make up the food of the Eskimo.

We have now seen that the Commonwealth contains lands with every kind of physical feature, and every type of

climate. The next stage is to consider how far the various parts of the Commonwealth can supply one another with the necessaries of life, and whether the Commonwealth could be self-supporting and independent of the other countries of the world.

The problem is not so easy to tackle as it appears at first sight, for three reasons.

In the first place, during the Great War, countries which had been regarded for a long time as dependent on foreign commerce, showed themselves capable, with more or less difficulty, of keeping themselves alive, even when their trade had gone or had been reduced to a minimum.

Secondly, because certain countries of the British Commonwealth buy what they need from "foreigners," because of proximity or facility of production, we must not immediately assume that the Commonwealth cannot supply these products from within her gates. It may merely show that, though the Commonwealth possesses these resources, they have not yet reached the stage of economic production. To take two commodities—one a necessity, one a luxury; in 1921 Great Britain spent £10½ millions in buying barley from the United States, and £3½ millions in purchasing dried fruits from Greece. It may well be that, in time, as the barley production of Canada continues to increase with the filling up of the prairies, Great Britain may desert the American for the Canadian shop. Dried fruits come to us mainly from Greece, in lesser quantity from the United States. If the Murray River scheme works as Australia thinks it will, the Australian may well be the richer by the £3½ millions that we spend in Greece.

Thirdly, there are as yet no reports showing in simple and tabulated form not only the production of the Commonwealth, but the potential resources of the Commonwealth for the production of foodstuffs, raw materials, and minerals.

We may, however, despite these difficulties, glean a great deal from figures in Whitaker's Almanack.

In Whitaker's Almanack for 1922—pp. 514–516, the first table gives the value and quantities of imports of particular articles into Great Britain from abroad, showing the countries from which they are principally consigned; while the second

shows the value of the export of the principal articles of British, and Irish manufacture and produce with the countries to which they are principally distributed. These tables are, of course, only for Great Britain, but as will be seen in Chapter IV, Great Britain is the main economic base of the Commonwealth. The commodities which are of the greatest value in time of war will be considered under the three headings of Foodstuffs, Raw Materials, and Manufactured Goods.

As typical foodstuffs we will take bacon, barley, butter, cheese, cocoa, coffee, eggs, fish, lard, maize, meat, oats, sugar, rice, tea, wheat—the items of the much-quoted " breakfast table "—as typical raw materials, coal, cotton, hemp, iron ore, palm-oil, rubber, timber, tin, wool, zinc,—as typical manufactured goods, copper, cotton goods, dyestuffs, iron and steel, leather, motor spirit, fuel oil, lubricating oil, paper, petroleum, woollen yarns. On every one of these articles we spend over £2 millions a year and everyone of them has a special importance in time of war.

To deal first with foodstuffs :—

Commodity.	Value of Import in millions of £.	Percentage from Foreign countries.		Percentage from countries within Commonwealth.	
Bacon ...	43	U.S.A. ...	37	Canada ...	14
		Denmark ...	25		
			62		
Barley ...	10½	U.S.A. ...	58	Canada ...	18
Butter ...	40¼	Denmark ...	37	Australia ...	29
				N. Zealand ...	22
					51
Cheese ...	17½			N. Zealand ...	50
				Canada ...	38
					88
Cocoa ...	2¾			Gold Coast ...	58
				Brit. W. Indies	16
					74
Coffee ...	2½	Brazil	26	India	23
Eggs	11½	Denmark ...	48		
Fish	9½	U.S.A. ...	18	Canada ...	19
		Norway ...	9		
		Japan	8		
		Denmark ...	7		
			42		
Lard	10½	U.S.A. ...	88		

Commodity.	Value of Import in millions of £.	Percentage from Foreign countries.			Percentage from countries within Commonwealth.		
Maize ...	18½	U.S.A.	...	45			
		Argentine	...	29			
				74			
Meat	56	Argentine	...	53	N. Zealand	...	17
					Australia	...	11
							28
Oats	4½	Argentine	...	37	Canada	...	43
Rice	6½	Siam ...	...	28	India	...	54
Sugar ...		Cuba ...	...	16	Mauritius	...	14
		U.S.A.	...	15	India ...	...	45
				31			59
Tea	23				India ...	...	64
					Ceylon	...	29
							93
Wheat & Flour	89¾	U.S.A.	...	44	Canada	...	22
		Argentine	...	4	Australia	...	22
				48			44

From this table it may be seen that the Commonwealth just provides Great Britain with the bulk of her required supplies of butter, coffee, oats, rice, and sugar—and gives practically up to her full requirements of cocoa and cheese, but falls far short of meeting her needs as regards bacon, barley, eggs, fish, lard, maize, meat, wheat and wheat flour.

If we take the three most important of these foodstuffs—wheat and wheat flour, meat, and sugar—we shall find that both Canada and Australia have of recent years steadily increased their yield of wheat, and with further development of the Canadian North-West and of Australia it may be possible to increase the British import and make Great Britain less dependent on the foreign wheat supply. The meat shortage is a more serious problem, as the tendency in both the countries above-mentioned is to turn more land each year into arable.

The sugar statistics are very different from those that might have been issued, if the Great War had not taken place. In 1913 Great Britain was buying two-thirds of her supply of sugar from Germany and Austria, and most of the rest from Holland, France, and Belgium. Since the war there has been a great growth in the sugar industry in Mauritius, and considerable improvement in India and Queensland.

Beet sugar from Europe is practically not available, though it may come soon to Great Britain from Czecho-Slovakia, which has absorbed most of the best sugar area of Austria, and with whom a Commercial Treaty was signed in 1923.

We may now turn to imported raw materials.

Commodity.	Value of Import in millions of £.	Percentage from principal countries.		Percentage from countries within Commonwealth.	
Cotton ...	72½	U.S.A. ...	62	Egypt	28
		[U.S.A., 1922 ...	80]	[Egypt, 1922 ...	15]
Hemp ...	2½	Philippines ...	56		
Iron Ore ...	5	Spain	30		
and Scrap		Algeria ...	16		
			46		
Palm Oil	2			Nigeria ...	84
Rubber ...	10½	Dutch E. Indies	14	S. Settlements	28
				Fed. Malay S.	25
				Ceylon ...	15
					68
Timber ...	30	U.S.A. ...	7	Canada ...	6
		Norway ...	6		
		Sweden ...	21	India	2
		France ...	5		
			39		8
Wool ...	43			Australia ...	44
				N. Zealand ...	19
				Cape Province	17
					80

It will be noticed that this list does not include coal. The position of Great Britain with regard to coal is extremely strong. Apart from her manufactures, coal and fish are the two products which Great Britain has to export. However heavily indebted we are to foreign countries for certain food products, and for raw materials, there is every year a considerable balance in our favour with regard to coal.[1] The surplus on the right side may be also considered in connection with the fact that India, Australia, South Africa, and New Zealand can provide enough coal for themselves, and have a little to spare. Coal is at present the principal source of mechanical power, and Great Britain is fortunate in being within one of the great coal mining regions of the world, the other regions being the north-eastern portion of the United States, and the unproved country of China, of which only the district of Shan-se in the north has as yet been touched.

[1] In 1923 Great Britain exported 79½ million tons of coal, or one-third of her total production.

The growth of the coal export has been the mainstay of the commerce and naval power of the Commonwealth. Even though oil stations have superseded coaling stations for the provision of fuel for the Navy, coal will always be a cargo for the tramp steamer which otherwise would go empty or nearly so to a distant port for cotton or hemp or wool for the packed industrial population at home.

The Commonwealth does not, as may be seen, give Great Britain enough cotton. Cotton goods occupy the premier position in the list of exported British manufactures, and Great Britain owns 57 million spindles out of a world total of 160 millions (35 per cent.), and exports four-fifths of her production.

Yet at present there is no country except the United States that can give Lancashire the fine cotton she needs, and the United States, owing to poor crops, insect pests and the increased cost of labour, has not so much to spare as usual.

Consequently, Lancashire is always asking—"Can the Commonwealth supply the deficiency of raw material?"

To this end, the British Cotton Growing Association was formed, to broaden the base of supply and to consider whether more cotton of the type required can be produced in India, the Sudan, East Africa, West Africa, Iraq, the West Indies, Australia (Northern Territory), and South Africa.

What has been achieved so far will be dealt with in the chapters on the Dominions, Colonies, and Protectorates concerned.

Our copper supply is short. Of the 87,000 tons produced each year on the average, Canada and Australia mine respectively 50 per cent. and 40 per cent., but they can hardly meet half our requirements. This shortage also holds good of borax, though British corporations control the important fields in the Argentine and Peru, and of lead, which has great potential development in Burma. At present, we want 212,000 tons of lead a year, and get 155,000 tons from the Commonwealth.

Thorium is now almost a monopoly, since the German mines in India have come under British control.

Of pig iron, Great Britain has an annual consumption of $8\frac{1}{2}$ million tons, while the rest of the Commonwealth calls for another $1\frac{1}{2}$ million tons. Of this, only $5\frac{3}{4}$ million tons does not come from a foreign source.

On the other hand, the Australian and Mexican output of antimony is in British hands, though the former field is hampered by restrictions on Chinese labour.

Canada produces 80 per cent. of the world's asbestos, and more than enough for the needs of the whole Commonwealth.

Rhodesia and Canada respectively provide all the chromium and cobalt.

Ceylon can furnish all necessary requirements of graphite.

India can easily supply the Commonwealth with manganese, as can Canada with nickel.

Our next table shows us the position of Great Britain with regard to manufactured goods.

Manufactured Goods.	Import value in £ Millions.	Foreign Country of Export.	Percentage of whole Import.	British Country of Export.	Percentage of whole Import.
Copper (in bars) ...	$6\frac{1}{4}$	U.S.A. ...	34	Australia ...	21
				Canada ...	17
					38
Dyestuffs	3	Switzerland ...	23	West Indies ...	10
		Argentine ...	12		
			35		
Iron and Steel ...	$22\frac{3}{4}$	U.S.A. ...	18		
Leather	$8\frac{1}{4}$	U.S.A. ...	38	India	22
Motor Spirit ...	$23\frac{3}{4}$	U.S.A. ...	48		
		Dutch E. Indies	17		
		Persia	17		
			82		
Oil Fuel	13	U.S.A. ...	41		
		Mexico ...	46		
			87		
Oil (Lubricating)	$6\frac{1}{4}$	U.S.A. ...	94		
Paper	$11\frac{1}{2}$	Sweden ...	23	Newfoundland	10
		Norway ...	8		
		Holland ...	15		
			46		
Petroleum ...	7	U.S.A. ...	83		
		Mexico ...	13		
			96		

The oils in greatest demand—products obtained from the distillation of petroleum—benzene, paraffin, petrol, etc.,

which are of the utmost value with the development of internal combustion engines for aircraft, motor traction, and oil-driven ships, come mainly from the United States and Mexico. The Commonwealth supplies are at present small, and give us only 2 per cent. of the oil we need.

Further, if we look at the percentage of the world production by the principal oil producing countries—amounting approximately to 100 million tons, in relation to the percentage of the export, we shall find how dependent we are on foreign supplies.

	Per Cent. of World Production.	*Per Cent. for Export.*
United States	63	19
Mexico	23	(75, crude ; 61, refined to U.S.A.)
Russia	4	8
East Indian Archipelago	2	75
Persia	2	90
British India	1	6
Rumania	1	36
Other oil-producing countries	4	—

Potential oil fields within the Commonwealth are near Attock (on the Indus), between Rawal Pindi and Peshawar, less than 200 miles from the Suez Canal, in Sarawak, and in Athabasca and Iraq. At present, however, the oil situation in the Commonwealth is not very satisfactory as regards crude oil for supplying oil fuel to the navy and the mercantile marine. In Great Britain there is very little shale oil and very little natural gas, though the former is being secured in Scotland, and the latter in small quantities in Sussex.

In Canada, the crude oil prospects are not very hopeful. There is a certain amount of tarsand, an oil-producing mineral, in Athabasca, there are good surface signs in the Peace River district and an abundant supply of natural gas between Dunmore and Bassano. There are also one or two small fields in the Medicine Hat region of Alberta, and the gas area may well extend for nearly a thousand miles parallel to the Rockies—at any rate a flow has been found 300 miles north of Edmonton.

In West Africa, and in South Africa, though there are some shale deposits in Natal, the results have, so far, been disappointing.

The most fruitful field in Africa lies on the edge of the Egyptian desert near the Red Sea, and less than 200 miles from the Suez Canal.

What oil there is in Australasia is in shales, though small petroleum wells are being worked in Tasmania and New Zealand.

The best worked ground in Asia is in Upper Burma, 275 miles north of Rangoon, and there are possibilities in Iraq, especially on the frontiers of Persia, whose oil wealth is a tremendous, if unknown, quantity, on the Indus, and in Sarawak. Burmese oil is lighter and more fluid than the viscous oil of Russia, Texas, Mexico, or California. This makes it more suitable as petrol or gasoline, but not so valuable for locomotives or steamship boilers.

Luckily, such organizations as the Shell Company and the Anglo-Persian Oil Company are controlled by British capital.

We may now consider what Great Britain has to offer to the Commonwealth and the world for its imports of food products and raw materials and manufactured goods. These are summarized in the following table for 1922 :—

Food Products.	*Million* £	Raw Materials.	*Million* £	Manufactured Goods.	*Million* £
Bacon	43½	Cotton	72½	Copper (in bars)	6¼
Barley	10½	Hemp	2½	Chemicals, etc.	12½
Butter	40¼	Iron Ore ...	5	Dye Stuffs ...	3
Cheese	17½	Palm Oil ...	2	Iron and Steel	22¾
Cocoa	2¾	Rubber	10½	Leather ...	8¼
Coffee	2½	Timber	30	Motor Spirit ...	23¾
Eggs	15¾	Wool	43	Oil (Fuel) ...	13
Fish	9½			Oil (Lubricating)	6¼
Lard	10½			Paper	11½
Maize	18½			Petroleum ...	7
Meat	56			Woollen Yarn ...	7½
Oats	4½			Cotton Goods ...	
Rice	6½				
Sugar	31¼				
Tea	23				
Wheat and Flour	89¾				
	382¼		165½		121¾

To this we must add a number of miscellaneous commodities to the total of £177 millions, and we get a grand total of imported merchandise of £846½ millions.

The value of exports is, of course, affected by the prevalent abnormal conditions. The state of the exchanges, the competition of cheaper labour, the scarcity of raw materials, as exemplified in the cotton, woollen and lace trades, debased currencies, keen foreign competition, ever-growing tariff walls, all react on our export business.

But the adverse balance of imports over exports is not abnormal, and is only slightly above the balance of other years. Further, it is in great measure due to the fact that a number of commodities are imported for re-export to other countries, Great Britain thus performing the function of an international clearing-house.

The figures for 1903–1913 (average), for 1919–1921 (average), and for 1922 work out as follows :—

	Trade in Millions of £.		*Balance of Imports over Exports.*
	Exports.	*Imports.*	
Average, 1903–1913	532·9	786·6	+253·7
Average, 1919–1921	1280·7	2039·2	+759·9
1922	1006·3	1322·9	+316·3

If we examine the source of our imports and the destination of our exports on the basis of the same figures, we shall find that of our imports—

In 1903–1913, 23·6 per cent. came from the Commonwealth.

In 1919–1921, 31·7 per cent., and in 1922 exactly the same percentage.

In other words, Great Britain buys more in proportion from her possessions to-day than before the Great War.

Actually, to take a typical year, Great Britain sent in 1913 54 per cent. of her exports to Europe, divided up in the proportion of 61 per cent., 33 per cent., and 6 per cent. for manufactured articles, raw materials and food stuffs, drink, tobacco respectively.

Among our best customers for our manufactured goods were the countries of Europe. To-day, owing to the unsettled state of the Continent, these exports have dropped to 10 per cent. of the whole. Russia, Germany, Rumania, Turkey, Austria, Hungary, which paid us in 1913 with raw materials for our manufactured goods, have ceased to do so. Timber, silk, flax, hemps, oil, hides, from Europe, do not represent 15 per cent. of the quantities imported in 1913.

In the same way—as in compensation for the loss of much trade with Eastern and Central Europe, the Overseas Possessions in 1922 bought more from Great Britain than before the war.

In 1903–1913, 35·2 per cent. of British exports went to the Commonwealth.

In 1919–1921, 35·5 per cent., and

In 1922, 39·7 per cent.

How far this market can be increased depends mainly on the economic development of those countries of the Commonwealth in which the white man can make a home—in other words, chiefly on the self-governing Dominions. It is hardly to be expected that in every respect the Commonwealth can ever be entirely self-sufficient, even with a return to normal conditions—at least for a long time. In essential food supplies, its production almost balances its consumption, and the amount of Commonwealth wheat, for instance, that is sold outside is really equal to the corresponding amount of foreign wheat imported from foreign countries. But in certain raw materials, the Commonwealth is not free from foreign dependence.

At present, as we have seen, we cannot get anything like the amount of cotton, oil, or petroleum from within our own confines and, as far as is known—quicksilver, lead, sulphur, mercury, borax, platinum and potash must be imported from foreign lands.

The same truth holds good of our exports. The British pig-iron trade has been largely built up on the requirements of the United States; most of our textile machinery, apart from what goes to India, goes to purchasers outside the Commonwealth; our shipments of cotton yarn to the Netherlands, of worsted and alpaca yarns to Germany, of linenpiece goods to the United States are more than a negligible proportion of our trade in these goods.

Moreover, it would be almost impossible to entirely oust American goods from the Canadian markets. The prairies are geographically too close to the United States and too like in economic fashion not to prefer at least some of their

manufactures. An American "harvester" will always have a pull over an English-made machine on a Canadian prairie farm.

With more British capital, however, for its economic development, and more settlers of British stock to fill up its empty spaces and increase its food supply, the Commonwealth will come more to Great Britain to buy manufactured goods in exchange for food and raw materials. A steady increase of population and wealth in the Dominions will enlarge the market and make the customer more inclined to buy within his own parish.

It may be noted that certain of the self-governing Dominions assist certain classes of goods manufactured in Great Britain by their preferential tariffs, and that as an outcome of the Imperial Conference of 1923, as a corollary of a resolution of the Imperial Conference of 1917: "That the time has arrived when all possible encouragement should be given to the development of Imperial resources and especially in making the Empire independent of other countries in respect of food supplies, raw materials and essential industries," it was proposed to adopt a similar preference to certain products of the self-governing Dominions and the Colonies, namely, on—

Products.	Country Assisted.
Dried Fruits—Figs, Raisins, Currants, Plums.	Australia (Murray River), South Africa.
Sugar.—Preference stabilized for ten years.	Australia (Queensland), West Indies.
Tobacco.—Preference extended from 1s. 6d. to 1s. 4d.	New Zealand, Canada, India, Rhodesia, Nyasaland.
Apples.—Duty, 5s. per cwt. on raw apples (=2s. 6d. a bushel) from foreign sources.	South Africa (Transvaal and Cape Colony), Australia (Tasmania), Canada (Nova Scotia, Ontario, British Columbia).
Canned Salmon, Lobster, Crayfish, and Crabs.—Duty, 10s. per cwt. on foreign canned Salmon.	Canada (British Columbia, Nova Scotia), Newfoundland.
Fruit Juice.—Duty of 6d. per gallon on foreign Fruit Juices.	Dominica (Lime-juice).
Honey.—Duty of 10s. per cwt. on foreign Honey.	Jamaica (logwood honey), New Zealand.
Wines.—Present preference of 2s. a a gallon on duty of 6s. a gallon to wines of strength exceeding 30 degrees to be doubled. 12s. 6d. a gallon on sparkling wine to be increased from 30 per cent. to 50 per cent.	Australia.

In the self-governing Dominions that have adopted preference the situation is as follows :—

In New Zealand.—Preference was introduced in 1903 and applied to 38 items ; in 1907 the number was increased to 109 ; in 1917 to 218 ; and in 1921 to 425.

In 1921–1922, 74 per cent. of New Zealand's imports came from British countries.

In Australia.—Preferences amounting in 1922–1923 to £7 millions. Preference safeguarded by anti-dumping legislation.

In Canada.—On certain imports :

(1) *High Tariff* on foreign goods.

(2) *Intermediate Tariff* on goods from countries with which Canada has made Commercial Conventions.

(3) *Low Tariff* on British goods.

Appendix IV.

COMPARATIVE TABLE SHOWING LATITUDE, TOTAL AVERAGE ANNUAL RAINFALL, MEAN SUMMER HEAT, AND MEAN WINTER, RANGE TEMPERATURE AND COLD OF CERTAIN CITIES OF THE COMMONWEALTH.

Region.	*Place.*	*Latitude.*	*Total Rainfall. Inches.*	*Mean Heat.*	*Mean Cold.*	*Range of Temperature.*
Equatorial Lowlands ...	Mombasa (Kenya)	—	90	85° F.	77° F.	8° F.
Tropical Lands	Calcutta	—	121	85° F.	63° F.	22° F.
Subtropical Lands	—	—	—	75° F.	—	—
(*a*) East Coast	Durban	—	88	—	64° F.	11° F.
(*b*) West Coast	Cape Town ...	—	52	—	54° F.	16° F.
Temperate Lands	—	—	—	70° F.	—	—
(*a*) East Coast	St. John's (N.B.)	—	80	57° F.	22° F.	35° F.
(*b*) Interior	Winnipeg ...	—	46	68° F.	5° F.	73° F.
(*c*) West Coast	Vancouver ...	—	139	62° F.	34° F.	28° F.
	London	—	24	61° F.	39° F.	22° F.

Appendix V.

PRINCIPAL SOURCES WITHIN THE COMMONWEALTH OF THE CHIEF COMMODITIES IMPORTED INTO GREAT BRITAIN.

	E. Africa.	*W. Africa.*	*Australia.*	*New Zealand.*	*W. Indies*	*S. Africa.*	*India.*	*Malaya.*	*N. America*
(*a*) Foodstuffs.									
Bacon	—	—	—	—	—	—	—	—	+
Barley	—	—	—	—	—	—	—	—	+
Beef	—	—	+	—	—	—	—	—	—
Butter	—	—	+	+	—	—	—	—	—
Cheese	—	—	+	+	—	—	—	—	+
Cocoa	—	+	—	—	—	—	+	—	—
Coffee	—	—	—	—	—	—	+	—	—
Eggs	—	—	—	—	—	—	—	—	+
Fish	—	—	—	—	—	—	—	—	+
Fruit	—	—	—	—	+	—	—	—	+
Mutton	—	—	+	+	—	—	—	—	—
Oats	—	—	—	—	—	—	—	—	+
Oleo-Margarine	—	—	+	+	—	—	—	—	—
Rice	—	—	—	—	—	—	+	—	—
Spices	—	—	—	—	—	—	—	+	—
Spirits (Rum)	—	—	—	—	+	—	—	—	—
Sugar	+	—	—	—	—	—	—	—	+
Tea	*	—	—	—	—	—	+	—	—
Tobacco	—	—	—	—	—	—	+	—	+
Wheat	—	—	+	—	—	—	—	—	+
Wheatmeal & Flour	—	—	+	—	—	—	—	—	+
(*b*) Raw Materials.									
Cotton	—	—	—	—	—	—	+	—	—
Diamonds	—	—	—	—	—	+	—	—	—
Gold	—	—	—	—	—	+	—	—	—
Hemp	—	—	—	—	—	—	+	—	—
Jute	—	—	—	—	—	—	+	—	—
Manganese Ore	—	—	—	—	—	—	+	—	—
Nuts & Kernels for expressing Oil	—	+	—	—	—	—	—	+	—
Coco-nut Oil	—	—	—	—	—	—	+	—	—
Palm Oil	—	+	—	—	—	—	—	—	—
Paper-making Materials	—	—	—	—	—	—	—	—	+
Rubber	—	—	—	—	—	—	+	+	—
Cotton Seeds	—	—	—	—	—	—	+	—	—
Flax Seeds	—	—	—	—	—	—	+	—	—
Tin Ore	—	+	—	—	—	—	—	—	—
Wood & Timber	—	—	—	—	—	—	+	—	+
Wool	—	—	+	—	—	+	+	—	+
(*c*) Manufactured Articles.									
Copper Bars	—	—	+	—	—	—	—	—	—
Dye Stuffs	—	—	—	—	+	—	+	—	—
Jute Manufactures	—	—	—	—	—	—	+	—	—
Pig Lead	—	—	+	—	—	—	—	—	—
Motor Spirit	—	—	—	—	—	—	+	—	—
Paper	—	—	—	—	—	—	—	—	+†
Tin in Blocks	—	—	—	—	—	—	—	+	—

* Mauritius.

† Newfoundland.

Appendix VI.

TOTAL MERCHANT STEAM TONNAGE, OF PRINCIPAL COUNTRIES OF WORLD (1922).

	Gross Tonnage.
British Commonwealth	21,254,000
France	3,303,000
Germany	1,783,000
Holland	2,613,000
Italy	2,600,000
Japan	3,325,000
United States	12,506,000

Appendix VII.

COAL RESERVES OF PRINCIPAL EUROPEAN COUNTRIES, 1923.

	Millions of Tons.	*Per cent. of World Total.*
Great Britain	165,387	32·0
Belgium	11,000	2·0
France	18,577	3·6
Germany	148,248	28·7
Italy	68,829	13·3
Russia	1,988	0·4
Ukraine	55,657	10·8

Appendix VIII.

TRADE OF THE MOTHER COUNTRY WITH THE COMMONWEALTH IN 1922, IN THE MORE IMPORTANT ARTICLES (VALUE IN MILLIONS OF £).

I.—IMPORTS.

Imports from—	India.	Canada.	Australia.	New Zealand.	S. Africa.	Other Colonies.
Wheat	—	19	19	—	—	—
Meat	—	6	6	16	—	—
Tea	15	—	—	—	—	7 (Ceylon)
Wool	1	—	19	8	7	—
Cotton	0·6	—	—	—	—	—

II.—EXPORTS.

Exports to—	India.	Canada.	Australia.	New Zealand.	S. Africa.	Other Colonies.
Cotton Goods	34	—	8	—	—	—
Iron and Steel Goods	14	—	6	2	—	—

Appendix IX.

SEASONAL SUPPLY OF COMMODITIES TO GREAT BRITAIN FROM THE COMMONWEALTH.

Month.	*Wheat.*	*Maize.*	*Oats.*	*Rice.*	*Cotton.*	*Sugar.*	*Tea.*	*Coffee.*	*Cocoa.*	*Tobacco.*
January ...	Australia N. Zealand	—	Australia	Burma India	N. India	Cuba Mexico	Ceylon Java	Costa Rica	Ceylon	Java U.S.A.
February	India Egypt	—	—	—	—	Cuba Mexico	Ceylon Java	Sumatra	Ceylon	—
March ...	India Egypt	Argentine	—	—	—	—	—	Ecuador	—	—
April ...	Egypt Mexico Cuba	Burma	—	Java	—	—	—	Java	—	—
May ...	N. Africa China	S. Africa	—	—	—	—	—	—	Sumatra	—
June ...	S. Europe S. (U.S.A.)	S. Africa	—	—	—	—	N. India China	Sumatra	—	—
July	Cent. Europe Canada U.S.A.		—	—	—	—	N. India. China Java	Brazil	Java Ecuador	—
August ...	Canada N. Europe	N. Europe	Canada	—	U.S.A.	Java	N. India China Ceylon	Brazil	Ecuador	—
September	N. Europe	C. China	Europe	China Japan	U.S.A.	U.S.A.	Ceylon India	Brazil	—	—
October ...	S. Africa S. India	U.S.A.	S. Africa	Burma	N. India U.S.A.	W. Indies C. Europe	Ceylon India	Mexico Venezuela	Java Sumatra W. Indies	U.S.A. Cuba
November	Argentine	U.S.A.	—	Burma India	C. India	W. Indies	China	Costa Rica Java	W. Indies Costa Rica	U.S.A. Sumatra Cuba
December	Australia	—	Australia	Burma India	—	Jamaica Cuba	China	—	Ceylon Mexico	U.S.A. Cuba Sumatra

CHAPTER IV

The Economic Basis of Commonwealth Defence.

Commerce is the greatest industry in the Commonwealth and the main reason for its size. Indeed, commerce and the Commonwealth react so intimately, that it is often difficult to distinguish cause and effect in any particular instance. For, while, in the first instance, colonies were regarded merely as places from which to obtain luxuries, they have now come to be markets for the manufactured goods of the Mother Country, and in many cases new territory has been acquired to safeguard British markets from foreign competition or native attacks.

Consequently, even the defence of the Commonwealth has an economic basis. You cannot defend the Commonwealth without defending its trade. The Commonwealth cannot exist unless its recruiting, technical and political centre is protected and preserved. That centre lies in the British Isles.

The population of the British Commonwealth is roughly 437 millions. Of these, according to the census of 1921, approximately only 65 millions, or 15 per cent. are whites. But, while the whites are greatly outnumbered, generally speaking we may say that the main strength of the Commonwealth lies in its white population. The value of coloured races must not be minimized ; but, as we shall see later on, this value is qualified by special conditions, climatic, physical, racial, psychological, which do not affect the white population. This qualification is especially noticeable if we consider the Commonwealth solely from the point of view of recruiting an army, a navy, an air force.

The white population of the Commonwealth is divided up as follows :—

Country.		*Population.*
The United Kingdom :—		
England	35,700,000	
Scotland	4,900,000	
Wales	2,200,000	
		42,800,000
Ulster and Irish Free State		4,700,000
Canada		8,100,000
Australia		5,370,000
New Zealand		1,220,000
Newfoundland		250,000
South Africa		1,420,000
Rest of the Empire		1,000,000
		64,860,000

As for recruiting purposes, Ulster may be regarded as part of Great Britain, the four united countries of England, Wales, Scotland, and Ulster, contain approximately 45 million whites, or nearly 70 per cent. of the whole. We may put this essential fact in concrete form by saying that Great Britain is the *main recruiting base of the Commonwealth.* This fact is of supreme importance if we believe that in the next " Great War " the nation will be conscripted at once, and that all the instruction of the " National " or " Commonwealth " army will be in the hands of its white personnel.

Further, the United Kingdom in relation to the rest of the Commonwealth, produces 89 per cent. of the coal, 90 per cent. of the iron and steel and material for ships, and owns 85 per cent. of the cotton spindles, and 90 per cent. of the vessels of all kinds. Moreover, 48 per cent. of the tonnage of the world, and 91 per cent. of the tonnage of the Commonwealth, passes through her ports.

If then, in shipping, in output of manufactured goods, of machinery, of coal and steel and iron, Great Britain has this dominating influence, she may well be rightly called the *main technical base of the Commonwealth.*

She is also, incidentally, the *main political base*—all her overseas possessions being in varying degrees dependent upon her Government.

In other words, the Empire hangs on Great Britain, and on her existence and maintenance.

On what does this existence rest ? This question must be answered by reference to history.

When the American War of Independence came to an end in 1783, Great Britain had lost almost all her possessions on the American Continent. Yet she was still supreme on the sea and her trade was increasing by leaps and bounds. Her remarkable vitality at this juncture, unaffected by disaster, was due partly to the excellence of her mercantile marine, partly to her sound commercial sense, mainly to a sudden and momentous internal change that was taking place at this period in British manufacture and trade, so remarkable in its progress and effect that it has come to be known as the Industrial *Revolution.*

The Industrial Revolution, which lasted from 1770 to 1825, was summarized, in 1792, by William Pitt as "the improvement that has been made in the mode of carrying on almost every branch of manufacturing and the degree to which labour has been abridged by the invention and application of machinery."

The period of the Revolution has also been called the epoch of the Great Inventions, because it was characterized by a series of inventions which revolutionized, first, the textile trades, and then manufacturing, mining, communications, and transport. Every invention of the period, except the cotton gin, which was the product of an American, Eli Whitney, was due to British ingenuity. Moreover, inventions were backed by the encouragement of the Royal Society, which offered liberal prizes for improvement in industry, capital was available owing to a sound banking system, established since the foundation of the Bank of England in 1694, the sea was open to commerce, and the markets were ready.

The first inventions affected the oldest of the English industries, cloth making. The invention of the fly shuttle by John Kay, of Bolton, in 1733, doubled the amount of work that a weaver could do in a given time, and called for more yarn. The way in which every invention was almost immediately followed by another supplementary to it, is almost uncanny. Kay's invention was not in common use until 1760. In 1764, James Hargraves produced the spinning-jenny, which would work, in its simplest form, eight spindles instead of one; twenty years later the eight

spindles had become eighty, and 20,000 machines were doing the work of a million and a half hand weavers.

The next development was in the quality of the woven thread. Arkwright's water frame accomplished this, and finally, in 1799, Samuel Crompton united the processes of the water-frame and the spinning-jenny into one machine, which he called the " mule." By 1811 more than four and a half million spindles were worked by " mules " in England.

Arkwright's machine was operated by water. Water, however, is liable to physical limitations. It may flood, it may dry up. Further, for machinery a sufficient fall, in a convenient place, is essential. Water soon proved a poor substitute for steam. The steam engine, which was to overcome the difficulties of water, grew out of a crude apparatus devised, in the early years of the century, by Newcomen to pump water out of mines. In 1763, James Watt, whilst engaged in repairing a Newcomen engine for the University of Glasgow, discovered its possibilities and altered it so radically that fifteen years later it could be introduced into cotton factories to work the new loom invented by Dr. Edmund Cartwright, of Kent. By the beginning of the nineteenth century, a child of 14 or 15 could operate a machine that wove three times as much cloth as the best hand weaver; and the product of the cotton trade had trebled.

The intimate relations of weaving, spinning, steam-engines, have been illustrated in the foregoing paragraphs.

Yet more results were to come. Machines demand iron, and iron of good quality. The iron trade is dependent on fuel. Hitherto wood had been used for smelting, but when the use of wood for this purpose led to the thinning of the English forests, and a scarcity of timber for the English navy, wood felling was limited by law.

Watt's new engine stimulated the production of coal, as it could not only clear the mines of water, but also sink shafts and help in coal haulage. Blast furnaces for smelting iron by coal were first operated in 1760, and after this improvements in working both malleable iron and wrought iron rapidly followed. The first puddling forge was used in 1784.

The output of iron in 1783 was four times that of 1750. England had now really begun to manufacture.

Once a nation starts on a manufacturing career, she is bound to seek a market for her manufactured goods.

The European markets awaited the English manufacturer, but he had first to get his goods to the seaboard ; and then across the seas.

Good communications are an essential factor in the development of trade. The roadmaker began to flourish side by side with the inventor. The roads needed reform. They were in an appalling condition, under the control of chaotic and bureaucratic boards. The reformers were to hand.

John Metcalf, of Knaresborough (1717-1810), blind from the age of six, successively fiddler, soldier, pedlar, fish dealer and waggoner, who built 180 miles of road, often over difficult bogs ; Telford, of Eskdale, Dumfries (1757–1834) to whom we owe over a thousand miles of roads in Scotland and the Holyhead Road, roads of good drainage, solid surface, and reasonable convexity ; Macadam (1756–1836), who first suggested the " impermeable crust " and lives to-day—the first advocate of scientific road-making that England listened to—in the word " tarmac," each improved beyond belief the great medium of eighteenth century transport. Further, as the good roads, as yet few and far between, became choked with increasing traffic, carriage by water came into its era with the development of the canal system. What the three pioneers were to roads, were Brindley, an illiterate genius of an engineer, and his patron and master, the Duke of Bridgewater, to English canals. The Bridgewater Canal, connecting the Duke's colliery at Worsley with Manchester, was completed in 1758. In 1777 a canal 96 miles long was built between the Trent and the Mersey, and the Potteries had a new window on the sea. By the end of the eighteenth century, Hull was joined to Liverpool, Liverpool to Bristol, London to Oxford. The canals served their time, and served it well—even if they, too, were to be superseded by a yet newer means of communication made possible by the application of the steam engine.

The railway and its successor, the automobile, have probably done as much as the great inventions to revolutionize commerce. The first locomotive which was constructed by Richard Trevithick was made to run along the road without a track, but proved too expensive to operate and was transferred to a prepared track three years later. If, however, Trevithick began the "travelling engine" George Stephenson brought it into practical form. One of the needs of the age was a quick method of transferring fuel from colliery to dock. In 1814 Stephenson's engine carried coal nine miles from pithead to the sea. The Stockton and Darlington Railway was opened with a Stephenson engine in 1822, and seven years later his Rocket, weighing a little over four tons and travelling at a maximum speed of 29 miles an hour, beat all its rivals in trials between Manchester and Liverpool.

The effect of steam on navigation was no less remarkable. The first steamship that really carried and continued to carry freight after the first trip, was the tug *Charlotte Dundas*—a Watt-engine-propelled vessel, which in 1802 began to run on the Forth and Clyde Canal. The first passenger vessel in Great Britain was the *Comet*, built by Henry Bell and launched on the Clyde in 1812, though it had been anticipated across the Atlantic by the *Clermont*, constructed by Robert Fulton, one of Bell's pupils, which made a successful voyage, under steam, of 145 miles—up the Hudson River to Albany.

After this, steam navigation develops by leaps and bounds. Within a quarter of a century the *Savannah*, an American vessel, had crossed the Atlantic in 26 days, and encouraged by the enterprise and business acumen of Sir Samuel Cunard, by 1854, in which year Great Britain had nearly 200,000 tons of shipping under steam power, the time was reduced to nine days. In 1922, the tonnage of Great Britain amounted to 19 million tons, of the Commonwealth to $21\frac{1}{2}$ million tons; and the record passage across the Atlantic, made by the *Mauretania* in 1909, was 5 days 4 hours 10 minutes 21 seconds. At any given moment of the day or night, 1,000 vessels flying the British flag are on the "common" of the open sea.

The above results could be multiplied almost indefinitely. The first steam printing press was installed by the London

Times in 1814; the telegraph was invented in 1832, to give the new power of electricity a needed impetus, and to lead on to the telephone in 1876, and to wireless in 1895.

The great movement that began in 1760 introduced the age of steam, which has again almost been displaced by electric power, and the motive force of oil made applicable to the locomotive, the street-car, the truck, the automobile, the ocean, and the air vessel.

As a result of this constant acceleration of development we are as far from the days of the ships of Hawkins and Drake, as the galleon of the Tudors was from the Roman trireme.

What has this development meant for the Commonwealth? For the Industrial Revolution is as much a dividing line in history as the fall of the Stuarts or the Black Death.

In the first place, there was a tremendous increase in the wealth of the country, which was not offset by any corresponding increase on the Continent of Europe. In 1763, the revenue of Great Britain was £5 millions and had not doubled since the beginning of the century. In 1830, the revenue was over £50 millions. Moreover, England could borrow at will on her new industrial credit. In 1750, the National Debt was £78 millions, in 1784, after the American War of Independence, it was 200 millions. By Waterloo it had risen to the enormous sum of £900 millions, and there was no income-tax.

The increase in the more important industries is even more striking evidence of the growth of the national wealth.

In 1700, 12,000 tons of pig-iron were manufactured in England; this had risen by 1740 to 17,000 tons; by 1830, production had been increased fortyfold to over 700,000 tons.

Perhaps the most significant development was in the textile industries. The output of the woollen industry doubled between 1750 and 1830, despite the difficulty in getting raw material, a difficulty which was removed as sheep-farming became the motive industry of Australia and New Zealand; but the increase in the cotton industry was almost phenomenal. In eight years—1798-1805—years of war with France, be it remembered—the export of cotton goods multiplied thirty times in value from £30,000 to £914,000, while the imports of raw cotton increased each

successive decade between 1791 and 1831 by successive leaps of 67 per cent., 39 per cent., 93 per cent., and, in the last decade, of 85 per cent.

The export of cotton goods and the import of raw materials are clear signs that more goods are being produced than can be used at home. Ocean transportation and its protection thus becomes an absolute necessity to the economic life of the nation. One of the most remarkable characteristics of modern British life is the growth of imports and exports.

A second striking feature of the Industrial Revolution was the growth of population. This was most marked in the new industrial areas that sprang up to absorb the people attracted from the village to the factory town. In 1750, the population of England and Wales had just touched 5 millions. At the first organized census of 1801 it had risen to 9 millions. and in the next thirty years had increased by another 50 per cent. The easier production of clothing and food accounts in part for this advance. By degrees, the population tended to outrun subsistence, and when unemployment came, people were ready to emigrate from the Mother Country, and try their chance overseas.

During every decade of the nineteenth century between 250,000 and 400,000 people left Great Britain for the Colonies, and helped in the peopling of Greater Britain.

A third characteristic of the Revolution—and this is of the greatest importance for our purpose—was that in the matter of food and raw materials Great Britain gradually ceased to be a self-supporting country. As soon as she began to produce manufactured goods in great quantity and of great quality, and began to find markets for these goods and for her coal, so soon did she begin to exchange her wealth for raw materials and for food to feed that portion of the population which her farms could not supply. To-day she makes no pretence of being able to feed the bulk of her people. The great recruiting and technical base of the Empire, with its large white population and its intensive industries, is dependent on the outside world for what her factories and her people consume.

To deal first with the food problem. Statisticians vary in estimating the number that can be fed from the farms of the United Kingdom. The optimists claim 15 to 18 millions,

the pessimists say that only 8 millions out of the 43 millions are being fed. Only 6 per cent. of the population is engaged in agriculture, a proportion which compares very unfavourably with the figures in Denmark (86 per cent.), Czecho-Slovakia (80 per cent.), Russia (72 per cent.), France (40 per cent.), or Italy (35 per cent.).

Certainly, the home contribution is not as great as it might be from the area of land under cultivation. The experience of the Great War taught us that the less we can learn to depend on the importation of foodstuffs during a future war, and thus reduce the volume of sea-borne traffic, the less will be the strain on the resources of the Navy, the greater our sense of national security. We have much to learn in the way of intensive farming from other European countries, especially from Denmark. For the last 40 years the yield of wheat and cereals in England has been practically stationary at 32 bushels an acre, while Denmark, where six-sevenths of the land is under cultivation, in 1922, raised an average of 46 bushels to the acre, or half as much again. In Germany, in 1914, every hundred acres was feeding 75 people, as compared with 45 to 50 in Great Britain, the value of the yield per acre being £9, or more than twice the estimated value of the yield per acre of British farm land. If we could only set our agricultural house in order we could probably produce twice the foodstuffs we are producing at present. As it is, farmers threaten to place land on an economic basis, by reverting to pasture and ranch farming, which will lead to diminished production, increased dependence on overseas supplies of food, and the abandonment of all idea of ever getting the population back to the land.

The wheat acreage in England and Wales was, in 1923, 226,000 acres less than in 1922. Whether, however, we are pessimistic as to the future of British farming, or believe that it might be possible greatly to increase the yield by forcing the soil to its maximum condition through the lavish employment of labour and fertilizers—which at the present moment apparently implies subsidies and protection—the fact remains that Great Britain is and has been for a century an industrial and not an agricultural country.

It has been stated that in Northern latitudes—from the evidence of France—a surplus of food can only be produced

in countries which have more than three acres a head, or in other terms, a density of population less than 200 to the square mile. France can practically support herself. She has roughly $3\frac{1}{3}$ acres per head—of which $2\frac{1}{2}$ are cultivated—and 187 people to the square mile. The present density of population in England is 701 to the square mile, or nine-tenths of an acre to each person. If we add Scotland and Wales the density becomes less, 480 to the square mile, or $1\frac{1}{3}$ acres per head. "Three-quarters of the white population of the Commonwealth is huddled together on less than one-fiftieth of the space available for expansion in the Dominions." Even if every city and every available strip of waste land was turned into arable, we should still be cultivating half as much as is provided for each individual across the Channel, and in 1923 the arable in England alone dropped 400,000 acres from the acreage of 1922.

Under present conditions, if the British Fleet was beaten in action and a vigorous blockade was instituted against our supply ships, Great Britain would starve within three months.

There is a slight weakness in this supposition, as a complete blockade or an attempt at a complete blockade by an opposing Power would, as the history of the Napoleonic Wars has taught us, almost certainly estrange other Powers by infringing the right of the open sea ; but even a very partial blockade such as that achieved by Germany in 1917, "as a most important secondary operation of naval war, will harass and distress any nation," and seriously devitalize its people and affect its moral—inasmuch as in 1922, to feed at least 25 millions of people the United Kingdom imported £472 millions worth of food, drink and tobacco, apart from £298 millions worth of raw materials and articles mainly manufactured. Further, those food supplies included :—

	Value in £
Wheat	73 millions.
Cereals, other than wheat	30 ,,
Butter, cheese and eggs	64 ,,
Fish	8 ,,
Raw fruit	28 ,,
Margarine	4 ,,

And of raw materials :—

Petroleum	60 millions.
Metals	14 ,,

Moreover, these supplies came in at every month in the year from various parts of the Commonwealth. If we take two given months, January and October, we shall find that wheat enters British ports from different parts of the world in both, and that in each of these months importers of valuable and essential food products are busy.

For in January—

Wheat is coming in from Australia and New Zealand,
Oats from Australia,
Rice from British India,
Cotton from North India,
Tea and Cocoa from Ceylon,
Maize from South Africa,

while in October merchants are expecting cargoes of

Wheat from South Africa and South India,
Oats from South Africa,
Tea from Ceylon and India,
Cocoa from the West Indies. (See Appendix IX).

Furthermore, Great Britain must not only feed its people but its factories. The most important raw material imports that Great Britain cannot herself provide are cotton—valuable for cloth, but in time of war even more valuable in the manufacture of explosives; oil fuel—which since 1914 has superseded coal as the chief fuel for the Navy; rubber for motor transport; wool for the clothing of her forces; timber for props and ladders; hemp for ropes and rigging; jute for sandbags; iron ore for machinery; essential oils, potash, phosphates—the list is almost endless.

If Great Britain is to remain as the chief technical base of the Commonwealth—and there seems no prospect of an immediate change—she must receive the raw materials which she can make up into manufactured goods, which in turn she can exchange for food supplies. It is not a matter of expediency, but of sheer necessity for her life. She does not pay, or partly pay for food in coin of the realm, but in exports of machinery, manufactured goods and coal.

Imports of the value of £1,082 millions, as we saw in the last chapter, were partly paid for in *exports* to the value of £731 millions.

We have already dealt with some of the exports and imports and shown whence these imports come and whither they go.

Using the same commodities, we may discover (1) where Great Britain shops (2) who are her best customers.

In 1921 the countries in which Great Britain did most of her shopping were—in order of value of purchases :—

Foreign Countries :	*Food-stuffs.*	*Raw Materials.*	*Manufactured Goods.*	*Total.*
	Value in millions of £.			
United States	133	47	53	233
Argentine	40	9	—	49
Egypt	—	23	—	23
Denmark	21	—	—	21
Mexico	—	—	16	16
Spain	15	—	—	15
Sweden	12	—	3	15
Holland	8	—	6	14
Norway	—	7	—	7
Switzerland	—	—	7	7
Cuba	6	—	—	6
China	5	—	—	5
France	—	—	4	4
Persia	—	—	4	4
Japan	—	—	2	2
Belgium	—	—	2	2
	240	86	97	423
From the Commonwealth :				
Australia	41	19	2	62
Canada	42	4	—	46
New Zealand	37	8	—	45
Colonies	18	18	3	39
India	19	10	4	33
South Africa	—	8	—	8
	157	67	9	233

Manufactured goods consist of articles that can be manufactured more cheaply, or of finer quality, in some foreign country, owing to special resources, cheaper labour, exchange, etc.

There are several significant things with regard to this last summary. First, we spend as much in the United States as in all the possessions of the Commonwealth. For every pound we spend she received 6s. 9d. Secondly, the remarkable productive capacity of New Zealand, a country with a population of only a million and a quarter. Thirdly, that only two European countries that took part in the Great War are included in the list.

Lastly—and this is of great importance—geographically the shops are literally as widely apart as the poles.

This last fact repeats itself just as obviously when we set down our best customers. They are, as before, in order of value remitted in £. s. d.

	Millions.
1. India	81
2. Argentine	40
3. France	30
4. Holland	18
5. United States	14
6. Japan	12
7. China	12
8. Egypt	12
9. South Africa	9
10. Norway	8
11. Italy	7¼
12. Canada	7
13. Germany	7

These figures are misleading if we do not take the population of the countries of our customers into reckoning. On this basis the order varies considerably :—

Purchase per head of population of British Goods.

	Approximately. £	s.	d.
1. Argentine	5	0	0
2. Norway	4	0	0
3. Holland	2	10	0
4. South Africa	1	8	0
5. Egypt	1	0	0
6. Canada	1	0	0
7. France	0	15	0
8. U.S.A.	0	5	0
9. Italy	0	3	9
10. Japan	0	3	2
11. India	0	2	9
12. Germany	0	2	2
13. China	0	0	8

while New Zealand—which only spends just over £3½ millions, gives us roughly £2 16s. 0d. a head.

All these export figures are much more pregnant in relation to possible future trade with the Commonwealth than the import figures—and for 1922 in bulk they are even more hopeful still.

To the Dominions alone the exports of produce and manufactures were £270 millions with a balance in favour of the Dominions over Europe of £23 millions.

Moreover, the imports to the Dominions have, as the following figures show, advanced in the last ten years, and in the case of Australia faster than any other country except the United States.

	1913.	1922.	
India	£70,000,000	£91,000,000	30 per cent.
Australia . .	34,000,000	60,000,000	76 per cent.
Canada ...	23,000,000	25,000,000	9 per cent.
France ...	28,000,000	48,000,000	71 per cent.
United States	29,000,000	55,000,000	90 per cent.

Further, of the exports—

Australia takes	95	per cent.	in	manufactured	goods.
India takes	94·5	,,	,,	,,	,,
Canada takes	80	,,	,,	,,	,,
U.S.A. takes	69	,,	,,	,,	,,

These figures must, of course, always be considered in relation to present population, future population, and future possibilities of development.

If we developed this aspect of Commonwealth trade further, we could well consider sea routes from our shops and the homes of our customers in terms of commodities. There would be a grain route, a wool and meat route, a timber route, cotton routes and the like for all articles. This, however, is purely an economic point of view, and we are concerned with the military aspect of economic geography. Three points, however, may be made in passing.

We live in a world of international exchange. Every nation needs something from another nation. Ever since Great Britain made the Methuen Treaty with Portugal, and our forefathers took to drinking port, in preference to the light wines of France, Great Britain has accepted this economic truth. The modern scheme of industry with its complex organizations, its division of labour, its localization is based on the desire to get goods that cannot be manufactured in a country for those that can be so produced.

Secondly, if the supply of the commodity desired is not adequate to the demand, the price goes up. It is at present more expensive to buy cotton between February and July, or cocoa in March or April. The North India supply of cotton ends in January, the American supply does not come in until August. Similarly, we do not get cocoa from Ceylon after February or from Sumatra before May.

Finally, the whole problem resolves itself into three parts, each aspect dependent on an axiomatic truth.

(1) We must defend Great Britain, because it is the main recruiting and technical base of the Empire.

(2) We must preserve our communications between the rest of the world, and especially between the rest of the Commonwealth and Great Britain; first, because this base must be rationed and supplied with raw materials, secondly, because the Commonwealth is not a unit, but a combination of many units scattered all over the world, concentration of a force at any given point implies the unrestricted use of the common highway of the sea.

(3) We must defend the Commonwealth because of its markets.

CHAPTER V

The Defence of Great Britain.

The defence of Great Britain implies not only defence of its islands against possible attack by sea, which might be followed by a landing, and defence against bombardment from the air, but also the protection of all routes leading through British waters to British ports; therefore, its defence primarily concerns the Navy and the Air Force.

The country to be defended consists of two main islands, and a number of smaller islands, lying between 50° and 60° N. Latitude and between 2° E. and 10° W. Longitude. It is divided into three main political units—England, Wales, and Scotland (known as the United Kingdom of Great Britain), on the larger of the two islands, and Northern Ireland (Ulster) and The Irish Free State on the island of Ireland.

The area and population of these political units was (census of 1921) as follows:—

	Square Miles.	*Population.*
The United Kingdom:		
England	50,874	35,678,530
Wales	7,466	2,206,712
Scotland	30,405	4,882,188
	88,745	42,767,430
Ulster	32,586	(estimated) 4,500,000
Irish Free State		
Total	121,331	47,267,430

England and Wales is approximately 430 miles long, 110 miles broad at its extreme breadth (Liverpool to Hull), and 60 miles across between Solway Firth and the Tyne. It has a coast line of 2,000 miles. Scotland is 288 miles long, while its breadth varies from 188 miles to 33 miles (between the Clyde and the Firth of Forth).

The greatest length of Ireland is 300 miles. It is as much as 174 miles and as little as 85 miles across. The island of Ireland faces westward to the Atlantic, the island of Great Britain is separated from the European Continent by a narrow and shallow sea, known variously as the North Sea, the Straits of Dover, and the English Channel. At its narrowest point, between Dover and Calais, England is only 21 miles distant from France. Farther south, at the entrance of the English Channel, it is 100 miles from the Lizard to Brest.

Invasion of England by land would in all probability be directed against the east coast of England, especially against the county of Essex. Essex is separated from the vulnerable county of Hertfordshire only by the tidal river Lea, which can be easily crossed. Through Hertfordshire pass the London Midland and Scottish, and the London and North Eastern Railways, two of the four group railways of the system of the United Kingdom, and the county lies in close proximity to the City of London, the capital of the United Kingdom, and the largest city with the largest port in the Commonwealth.

The east coast of England, except for the rocky and dangerous shore of Yorkshire, affords many possible landing places for hostile troops. There are low-lying lands from the estuary of the Humber, 180 miles north of London, all the way down to the northern bank of the estuary of the Thames river.

The most convenient place for the preparation of an invading force would be the coast line of France extending from Cherbourg to the Helder, and including the mouths of the Seine at one extremity and of the Rhine at the other.

It is divided into two geographical units—one facing the English Channel, the other the channel of the North Sea, north-east of the Straits of Dover.

The southern unit is bounded by Cape Grisnez, and by the Finistère peninsula with its great naval harbour of Brest. Its river is the Seine, with the port of Havre upon the estuary. Havre has not as fine a harbour as Brest, but it has good railway communications and it is sheltered from naval attack by its distance from the open sea. Opposite the

Seine estuary lie the inlets of Spithead and the Solent, the key to the great commercial port of Southampton, and the naval harbour of Portsmouth, protected by the Isle of Wight, and linked up with London by railways along the valley of the Itchen (80 miles) and of the Arun farther east (74 miles). All along from Southampton to the South Foreland runs a line of chalk hills, and this line is paralleled on the other side of the Channel, on both sides of the Seine opening from Cape Grisnez to Champagne. There is nothing that can be called a harbour between Dover and Portsmouth.

From the Isle of Wight to the strongly fortified port of Cherbourg is only 80 miles. West of Portsmouth rivers have forced their way through the chalk barrier, and formed harbours, of which Poole, Weymouth, Dartmouth, Plymouth, Devonport, Falmouth are the most notable. Plymouth only is a great dockyard port. Plymouth, however, is 250 miles from London.

The natural English ports facing the Channel and guarding the most important line of communication are decidedly better than the few French ports on the south side of the Channel. It was on these ports that the Fourth Division of the Fleet was based at the outbreak of the Great War.

The distance across the Channel from Southampton to Havre is 114 miles. From Newhaven to Dieppe it is 64 miles, and at the two narrowest points for the crossing of the packet—from Folkestone to Boulogne, and from Dover to Calais, it is 26 and 22 miles respectively.

In between these two crossings it has been proposed to build the Channel Tunnel. It would be comparatively easy to construct such a tunnel, and if the Entente Cordiale was still in existence the tunnel would be of considerable service in relieving a naval blockade.

If it was necessary, it could also be rendered useless to invading troops, but if by chance it was again put into operation by the enemy, it would be invaluable to him as a protected line of communication to bring up his men and *matériel* and might even be the deciding factor in determining the success or otherwise of an invasion.

The approaches to the northern entrance of the Straits of Dover broaden out again and are 61 miles in breadth from Dover to Ostend.

The great commercial ports of this northern sector are on the Rhine and Scheldt, and their estuaries. The Scheldt flows in a north-easterly direction, and enters the North Sea by a number of channels.

Fifty miles from its mouth stands Antwerp, a base with great possibilities for an attack on Great Britain. The outer port of Antwerp, Flushing, is 109 miles from its opposite number, Queenborough, on the Medway. Antwerp, however, is in Belgium, while the banks on both sides of the Scheldt for 40 miles are in the hands of Holland. The Dutch port of Rotterdam is, therefore, its rival. If Rotterdam had fallen into German hands, and the Great War had turned out otherwise, it would have been the natural outlet for Essen and other German arsenals in the Rhine basin.

The Hook of Holland, its outer port is 106 miles from Harwich, at the mouth of the Stour and Orwell. It is a great advantage that since 1831, by the Treaty of London—the " scrap of paper "—Belgium and Holland have been separate Kingdoms.

The sea frontage of the Scheldt mouths extends for 47 miles from this point to the southern shore of the West Scheldt. On the opposite side of the Channel are a succession of river mouths of exactly the same frontage, namely, the mouths of the Medway, Thames, Crouch, Blackwater, Colne, Stour, Orwell and Deben, which would provide excellent harbourage, and are easily reached from the Continent in the course of a dark night.

For bombardment by long-range guns the French shore opposite the Dover—Folkestone line, provides an excellent point of vantage, but it cannot provide the sheltered accommodation that makes invasion more practicable from the Scheldt ports.

To Antwerp and Rotterdam, already mentioned, we must also add Amsterdam, approximately the same distance as Rotterdam from the English coast—it is only 104 miles from Ijmuiden, at the end of its ship canal, to Yarmouth.

On the German coast of the North Sea, Hamburg and her sister ports on the Elbe and Weser, linked together with Kiel to the Elbe estuary by the Kaiser Wilhelm Canal, are 300 miles distant from England, and therefore too far away for a night crossing. Moreover, the Kiel Canal, which was built

to give German ships a direct passage from the Baltic to the North Sea, has lost its value in a demilitarized Germany, and is now an important, but a purely commercial canal.

On the west coast of England is the dockyard port of Pembroke Dock, in Milford Haven, a magnificent natural harbour 280 miles from London.

Pembroke Dock flanks the great industrial area of South Wales, with its ports of Cardiff and Swansea. Beyond this to the north there are no defended points on the west side of the United Kingdom, on the flat and sandy shore of southern Scotland or on its bold, rocky eastern and northern coast.

Atlantic operations are controlled from Berehaven and Lough Foyle in northern Ireland. Both have splendid harbours, and can accommodate the largest type of battleships. The Treaty with the Irish Free State permitted the retention by the Navy of the bases of Berehaven, Blacksod Bay and Cork Harbour.

On the east coast of Scotland are many fine estuaries, in one of which in the Orkneys, is Scapa Flow, the headquarters of the Grand Fleet at the end of the Great War. On the north side of the Firth of Forth is also the naval base of Rosyth. At no point are the Scotch harbours on the east coast less than 450 miles from important ports on the Continent—Leith on the Firth of Forth is 500 miles from Hamburg, 600 miles from Christiania, and 700 miles from Copenhagen.

For concentration of troops to ward off a sudden attack, or to move to an overseas field of action, Great Britain is well placed.

She possesses a veritable network of railways (nearly 24,000 miles in length), grouped into four main lines, the London Midland and Scottish, the London and North Eastern, the Southern, and the Great Western. Except in the higher masses of the Pennine Range, the Welsh mountains, and the Scottish Highlands where they are restricted to the coastal plains, English railways have few difficulties to contend with. There are, in consequence, many interlinking short lines, and excellent through communication between distant points. Moreover, all the group lines have one or more termini in London.

The number of persons to each running mile in the United Kingdom is larger than in any other of the countries of the Commonwealth, except India. In proportion also to its size the United Kingdom has a much larger mileage than any other country, New Zealand coming second in this respect.

Further, in the industrial areas, electrification, leading to greater speed, is being introduced.

These railways are also supplemented by a number of main roads, classified and numbered on a definite plan, and by a fairly efficient canal system, 4,000 miles in length and carrying each year over 40 million tons of produce, for the transport of heavy goods which do not require speedy transit. This system, in many cases, is being developed and improved. The only canal which will take ships of any tonnage is the Manchester Ship Canal—the scheme to build a "battleship" canal between the Forth and the Clyde having not yet been adopted.

The most important small canals are (1) the Leeds and Liverpool, between the Humber and the Mersey; (2) the Manchester and Calder, connecting the Irwell and the Calder, which runs into the Humber; (3) the Trent and Mersey, joining the Potteries to the sea; (4) the Thames and Severn, and (5) the Kennet and Avon giving direct communication between London and Bristol.

Further, Nottingham will eventually be joined to the North Sea by a canal carrying barges up to 400 tons. No English city, however, is so dependent on canals as Birmingham, which is joined to the Upper Thames by the Oxford Canal, to the Lower Thames and London by the Grand Junction Canal, to the Upper Severn by the Shropshire Canal, to the Lower Severn by the Worcester Canal, as well as to the Trent and the Mersey.

In Scotland the Caledonian Canal is available for small ocean-going ships, but passes through a region of little commercial value.

Hitherto we have considered the possibility of naval invasion. There is, also, the very serious possibility of invasion by air.

The United Kingdom as an industrial country is especially vulnerable to air attack, because roads, rivers, railways,

along the lines of which aerial attack necessarily proceeds, all lead to great industrial centres.

Apart from the concentrated population of the London area, there is a dense mining population in the coalfields of Nottingham, Derbyshire and Yorkshire, South Wales, Durham and Northumberland, the Forth and Clyde, Lancashire and Cheshire, and Staffordshire ; and in the iron fields of Cleveland (Yorkshire), Furness (Lancashire and Cumberland), South Staffordshire, and the Central Lowlands of Scotland.

There is a thickly populated area for the manufacture of cotton goods in Lancashire, Paisley, and Nottingham ; of woollen goods in Yorkshire (West Riding), and in Leicester ; of linen goods in Forfar and Fife, and West Yorkshire ; and of sacking and rope (from jute) in Central Scotland (Dundee).

Finally, the smelting of iron is concentrated at Middlesbrough, Barrow-in-Furness, the Black Country of South Staffordshire, Airdrie on the Clyde, Rotherham in the West Riding of Yorkshire, and in Glamorganshire ; the making of locks and keys at Walsall, of bicycles and motor cars at Coventry, of toys at Birmingham, of chains at Cradley Heath, of cutlery at Sheffield, of china in the Potteries, of textile machinery in certain towns of Yorkshire and Lancashire, of leather goods at Leicester and Northampton. The list might be multiplied indefinitely, but it is sufficient to show where the vulnerability of the interior of the United Kingdom lies ; and we have not mentioned such obvious points of attack as the vital shipping ports—to take their order in value of tonnage—of London, Liverpool, Cardiff, Newcastle, Glasgow, Hull, Southampton, Manchester, Leith, Bristol, and Grimsby.

The radius of aeroplanes is easily within the compass of 300 miles. The centre of the vitality of Great Britain is London, and any attack destined to dangerously damage the country would probably be aimed at her first of all. "London, our vital nerve centre, is also the largest aircraft target in the world." She was the objective of most of the German raids between 1915 and 1918, and suffered more heavily than Paris, even from imperfect aircraft.

But there are, as we have just seen, other industrial areas in England with a concentrated population outside the

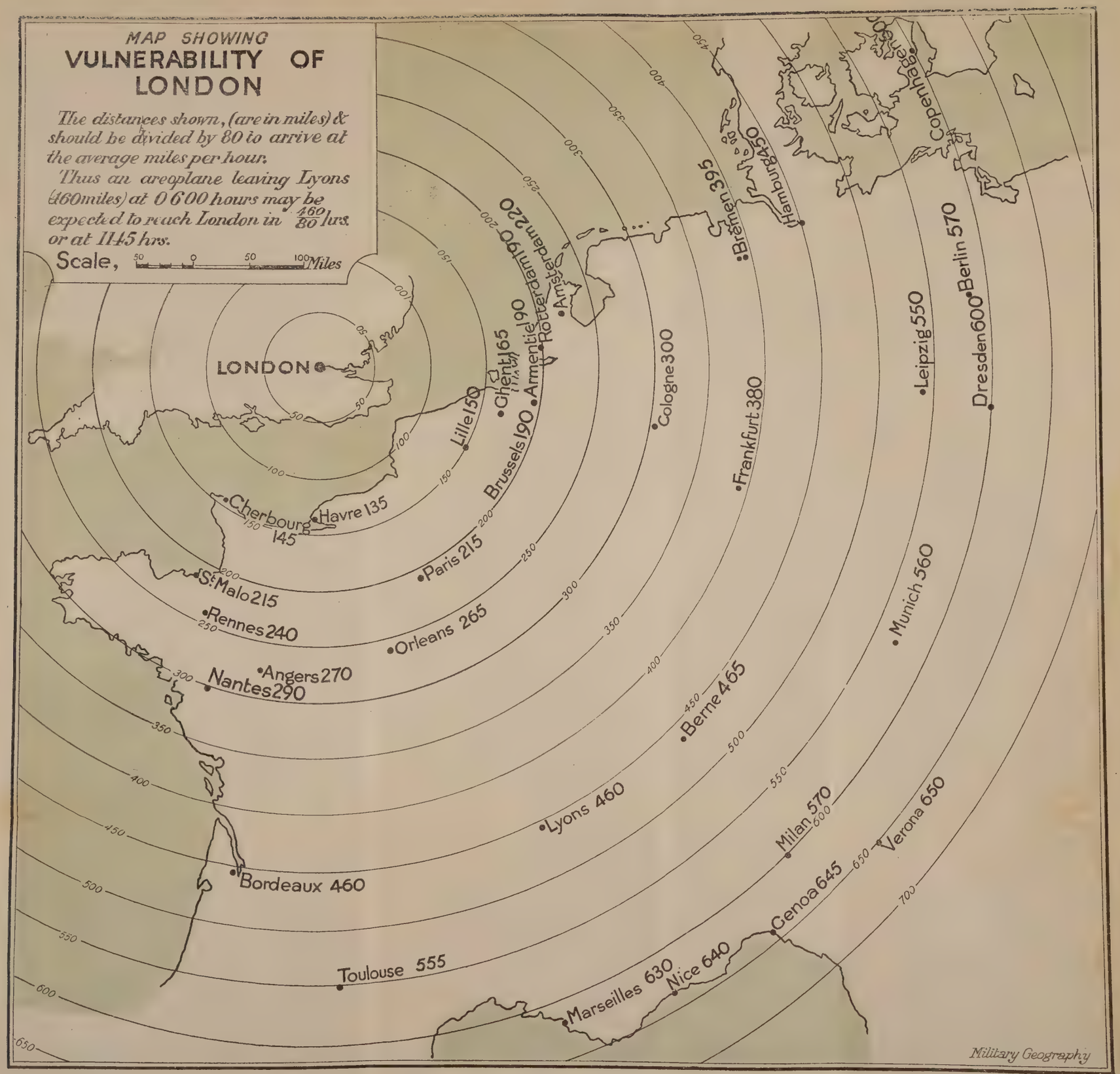
London area, and, as flight now goes, at but small distance from Continental aerodromes of states with a high manufacturing efficiency across the English and Dutch channels. Liverpool, the second port of the Commonwealth, the outlet for the cotton industry, is approximately 200 miles, Glasgow 400 miles, Bristol, the most convenient commercial port, only 100 miles from London. Even the most northerly of the western harbours are thus within effective aircraft range from continental bases, and sea-borne food supplies coming from across the Atlantic are liable to destruction by torpedo carriers or depth-charge bombs.

A radius of 200 miles from London (of only 300 miles from Bristol) covers from west to east St. Malo, Le Mans, Paris, Rheims, Liege, and Amsterdam. For a larger plane well armed with bombs 500 miles is easy enough, and this would be a short range for airships. Within 500 miles of London are Bayonne, on the Spanish frontier, Avignon, Zurich, and the greater part of Switzerland, Munich, Leipzig, Berlin (530 miles), the eastern end of the Kiel Canal. Rügen, on the shores of the Baltic, is about 600 miles away, and much Russian, Esthonian, and Latvian territory, facing the same sea, is within 1,000 miles of London.

The very advantages that England possesses in its concentrated railways, reaching to every corner of the country, its great manufacturing districts, with their dense population—outside London, Lancashire has 3,466 people to the square mile, and the West Riding of Yorkshire 842—its many rivers and its absence of steep mountain ranges, make it thus peculiarly vulnerable to aerial bombardment.

There has been a great development in the power of aerial attack since 1918. This improvement has included greater reliability, heavier bombs charged with explosives of greater power, an extension of the radius of action, and the use of wireless in the direction of movement.

Even in the Great War the comparatively futile attacks on London accounted for approximately 500 killed, 1,250 wounded, the destruction of 175 buildings, and damage to the extent of £2½ millions. Another war against an enemy superior to Great Britain in the air might multiply this damage a hundred fold in a very short time.


MAP SHOWING
VULNERABILITY OF LONDON
The distances shown, (are in miles) & should be divided by 80 to arrive at the average miles per hour.
Thus an aeroplane leaving Lyons (460 miles) at 0600 hours may be expected to reach London in 460/80 hrs. or at 1145 hrs.
Scale, 50 0 50 100 Miles
LONDON
Ghent 165
Armentieres 190
Rotterdam 220
Amsterdam
Bremen 395
Hamburg 450
Copenhagen 800
Lille 150
Brussels 190
Cologne 300
Frankfurt 380
Leipzig 550
Berlin 570
Dresden 600
Cherbourg 145
Havre 135
Paris 215
St. Malo 215
Rennes 240
Orleans 265
Munich 560
Angers 270
Nantes 290
Berne 465
Lyons 460
Milan 570
Verona 650
Bordeaux 460
Genoa 645
Toulouse 555
Nice 640
Marseilles 630
Military Geography

If war comes again it may well begin with an aerial phase, aimed principally at the "disarmament of the Government by the demoralization of the people," with the secondary purpose of destroying such mainsprings of naval and military endeavour as dockyards, arsenals, munition factories, and mobilization centres.

The very factors that hitherto have aided Great Britain may henceforth imperil her security :—

(1) A dense population concentrated in great cities.
(2) Her vast capital in a most exposed situation.
(3) Her insular position.
(4) Her sea-borne food supplies.

Defence must be met with offence. As tanks must be countered by tanks, so aircraft must oppose aircraft. Though Great Britain has denied herself the one-power standard both at sea and in the air, she has accepted the principle of more adequate defence, and defence implies scouts for espionage and as feelers as well as mobile squadrons for attack.

An enemy force that slips through our barriers in strength and successfully bombs a great focus of population may have an incalculable effect on the *moral* of the civil population, which is necessarily weaker than that of the disciplined fighting services.

To quote the words of Marshal Foch :—

"The potentialities of aircraft attack on a large scale are almost incalculable, and such an attack, owing to the crushing moral effect on a nation, may impress public opinion to the effect of disarming the Government and thus become decisive."

Appendix X.

COMPARATIVE RAILWAY STATISTICS FOR THE UNITED KINGDOM, THE SELF-GOVERNING DOMINIONS, AND INDIA.

	Population in Millions.	*Area in 1,000 Sq. Miles.*	*Running Miles of Railway.*	*Proportion of Running Miles per 1,000 Sq. Miles.*	*Per 10,000 of the Population.*
United Kingdom	43,000,000	89,000	56,000	629	13
Canada	8,750,000	3,700,000	59,000	16	68
Australia	5,500,000	3,150,000	25,000	8	45
Newfoundland	250,000	160,000	800	5	32
South Africa	6,000,000	800,000	9,500	12	16
New Zealand	1,250,000	105,000	3,000	29	24
India	320,000,000	1,800,000	36,000	20	1·1
United States	95,000,000	3,000,000	266,000	89	28
France	40,000,000	213,000	31,000	146	7·7

CHAPTER VI.

Communications—By Sea and Land.

The British Commonwealth has been called an "ocean state." Its political and economic cohesion is entirely dependent upon its communications. The maintenance of these communications is necessary to the existence not only of Great Britain but of the whole Commonwealth, for three reasons :—

1. On economic grounds. This aspect of communications has already been dealt with in the previous chapter.

2. More rapid means of communication by water, by land, by air, by cable, by wireless, may be regarded as the key to closer consultation between representatives of the various members of the Commonwealth, which alone can secure the preservation of its political unity.

3. Communications are invaluable in time of war to ensure strategical success by the rapid concentration of men and material at any given point unfavourable to the enemy. In other countries this concentration of forces is made mainly along roads and railways, with a subsidiary use of rivers and canals, but the British Commonwealth is so far flung to the uttermost parts of the earth that the "common" of the sea and the air has to be used, and is of vital importance to its security.

Railways and roads, however, are of great importance in every part of the Commonwealth, not only from an economic point of view, as factors in the development of a country, but also because they aid in bringing resources in both men and supplies to concentration camps for speedy dispatch overseas to any given point.

1. Railways.

First, with regard to railways. Great Britain stands, as we have seen, first in the world for its miles of railways in relation to its area, the figures for the chief countries being as follows :—

Country.	*Miles of Railway per 1,000 Square Miles.*
Great Britain	629
Belgium	265
Holland	188
Switzerland	153
France	149
Denmark	146
Italy	106
United States	89
Japan	52

When we compare the figures of Great Britain with those of the self-governing Dominions and India on the same basis, the overwhelming superiority of Great Britain is even more striking :—

For every 1,000 square miles of area

Great Britain	has 629	running miles.
Australia	has 8	,,
New Zealand	has 29	,,
India	has 20	,,
South Africa	has 12	,,
Canada	has 16	,,
Newfoundland	has 5	,,

Great Britain has, however, not quite the same railway predominance in regard to population. First of all, in comparison with the same foreign countries as were selected in the first table, per 10,000 of population, while she ranks above all the European countries, she falls below the United States.

	Running Miles per 10,000 *of Population. (To the nearest Whole Number.)*
United States	28
Great Britain	13
Switzerland	9
France	8
Belgium	4
Italy	4
Holland	3
Denmark	2
Japan	1

In relation to the population of the self-governing Dominions and India we get the following table :—

	Running Miles per 10,000 of Population. (To the nearest Whole Number.)
Great Britain	13
Australia	43
New Zealand	27
India	1–2
South Africa	13
Canada	43
Newfoundland	36

These figures are very noticeable as an index of the remarkable railway development of the Dominions. Railways are built either to open up a new country, to link up centres of population, or to connect those centres with their natural outlet on the sea. The Stockton and Darlington Railway was opened in the United Kingdom in 1825, at a time when population, as a result of the Industrial Revolution, had already begun to concentrate in large industrial towns and in seaports.

In the Dominions, on the other hand, there were large bare spaces waiting for people to fill them. The peopling of North-West Canada, for instance, only became possible because of railway development. In Great Britain we may take it that railway mileage is not likely to increase to any great extent. In the Dominions continuous increase is inevitable, and essential to prosperity. Much of the large national debt accumulated in Australia and Canada is due to gallant development of railways to open up virgin lands. Moreover, during the last twenty years railway development in Canada has more than kept pace with population increase, as in 1902 the railway mileage per 10,000 of the population, even including electric railways, was only 36.

The strategical value of railways, rivers, and canals to particular portions of the Commonwealth will be specially considered in connection with the defence of those countries, as we have dealt with these means of communication in connection with the defence of Great Britain.

2. Roads.

In an old country like Great Britain railways followed roads. In new countries, such as the Dominions, roads follow railways. Stephenson's Rocket was not invented

till Macadam, the last of the great road pioneers, was already an old man. Consequently, while in the United Kingdom there are 240,000 miles of public road, and every village is linked up by a reasonably good road, many so-called main roads on the prairie, across the veldt, or in the backblocks would not bear comparison with some of the grass tracks across the English downs. On the other hand, except in India where the climatic conditions are unfavourable, and there is a lack of available metal, in jungle country, where railways are difficult to build, good roads have been constructed, and in certain overseas possessions—Nigeria and Tanganyika Territory, for example—roads not only play a very large part as a civilizing and economic agent, but make a good strategical substitute for railways yet to be built.

3. Rivers and Canals.

In all the Dominions, except Canada, there is little or no river navigation.

In South Africa deep and broken channels make the rivers useless for communications; in Newfoundland and New Zealand there are no streams of any size; in Australia navigation is confined to the Murray, the other rivers being either short and swift and liable to floods, or long, slow and subject to droughts.

There are consequently no canals in these four Dominions. Outside the Dominions, in the forest regions of West Africa and on the Upper Nile of the Sudan and Uganda, along the Juba and Sana rivers, the rivers, if periodically cleared of vegetation, are the easiest of highways.

The river and canal systems of Canada and India are dealt with in the chapters on these countries.

4. Communications by Sea.

In the survey of the wider question of communication by sea it must never be forgotten that the defence of lines of communication and of the transport and supply vessels that use those lines is the business of the Navy and its attendant aircraft, and that each new development in offensive warfare makes this task harder, and calls for a corresponding invention to counter the attack.

Consequently, any detailed consideration of lines of communication must include necessary data regarding the defensive harbours that flank or screen them, the available coaling or oiling stations, and the flanking ports of foreign powers. We have already seen that these lines could be differentiated on an economic basis, but, as this book is intended to be a guide not to economic but to military geography, and such economic facts as have been introduced have served an auxiliary purpose, they will be considered solely with a view to their value as connecting links between Great Britain and the outlying portions of the Commonwealth.

These possessions may be set down in the following geographical order :—

(1) Canada.
(2) The West Indies.
(3) New Zealand.
(4) East Africa.
(5) India.
(6) Australia and the Pacific Islands.
(7) Malaya and the Far East.
(8) South Africa.
(9) West Africa.

The order appears at first sight erratic, and the separation of New Zealand from Australia would seem to be erroneous, unless we are aware that since the war ships proceeding to New Zealand from Great Britain have deserted the old forward Teneriffe—Cape Town—Hobart, return Monte Video —Buenos Aires—Teneriffe line for the more direct route through the Panama Canal.

The main lines, then, resolve themselves into four :—

1. The North Atlantic Route, linking Great Britain with Canada.

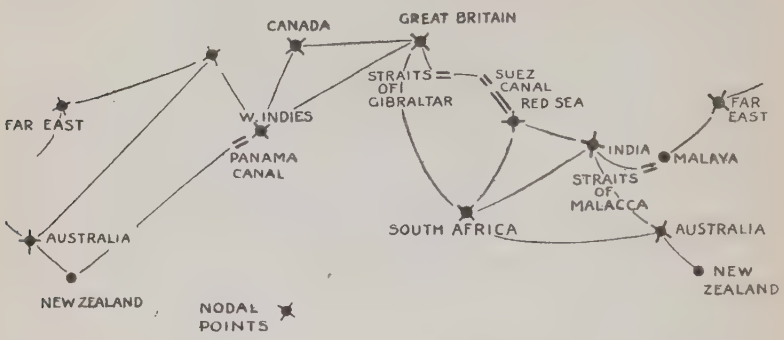
2. The Panama Route, via the West Indies to New Zealand.

3. The Mediterranean—Suez Route to East Africa, India, Malaya and the Far East.

4. The Cape Route to West Africa, South Africa, India, and Australasia.

Of course it is obvious that a main route may divide at a junction, and that one of the new routes so formed may then join up with other main routes. The following diagram

will elucidate this point. Technically the junction is called a nodal point, from the word " node," which in botany is the point where the branch unites with the trunk of a tree.



Thus the North Atlantic route throws off at Halifax a spur line which eventually meets the Panama Route in the West Indies. A similar spur leaves the Panama Route and makes an uninterrupted sea route from Great Britain to Eastern Canada. At Vancouver it joins the railway continuation of the North Atlantic Route across the North American continent, and from Vancouver also branch off two other ocean roads, the first of which links up at Hong-Kong with the terminus of the Mediterranean—Suez Route, while the second proceeds by way of Fiji to New Zealand, also the end of the line through the Panama Canal.

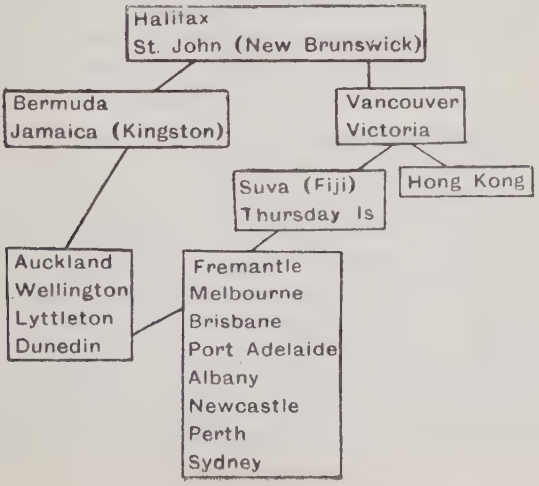
Eastward there is a junction at Aden for East Africa and Australia, at Colombo for Australia and for the Far East, while from Cape Town on the Cape Route you may journey either up the East Africa coast and across the Indian Ocean to India, or venture on the long voyage to Tasmania and Western Australia.

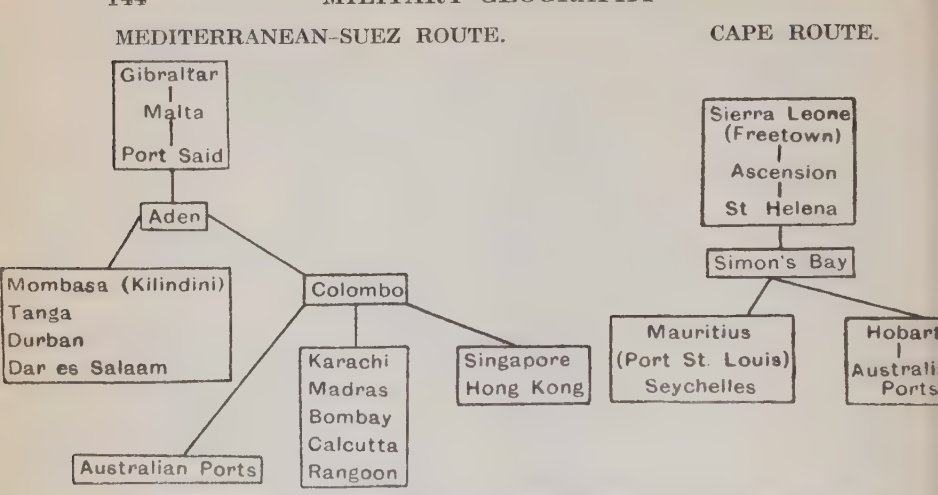
Each of these great lines is served by British shipping companies, whose steamers follow voyage after voyage almost the same well-defined track.

Line.	*Branch.*	*Steamship Company.*
1. *Atlantic Route* ...	Great Britain to Canada	White Star, Dominion, Cunard, Elder-Dempster, C.P.R.
	Canada to Far East	C.P.R.
	Canada to Australia and New Zealand	Canadian-Australasian.
2. *Panama Route* ...	Great Britain to West Indies	Harrison.
	Great Britain to New Zealand	New Zealand, White Star, Shaw, Savill, Albion.
3. *Mediterranean – Suez Route*	Great Britain to Mediterranean and Red Sea	Khedival Mail.
	Great Britain to India	P. and O., British India, Ellerman, City Hall, Bucknall, Bibby, Anchor, Henderson.
	Great Britain to Far East	P. and O., Ellerman, City Hall, Bucknall, Blue Funnel.
	Great Britain to East Africa.	British India.
	Great Britain to Australia	Australian Commonwealth, P. and O., British India, Orient.
4. *Cape Route*	Great Britain to South Africa	Ellerman, City Hall, Bucknall, UnionCastle.
	Great Britain to West Africa	Union Castle, Elder-Dempster.
	Great Britain to East Africa.	Union Castle.
	Great Britain to India	—
	Great Britain to Australia	White Star, Aberdeen, Blue Funnel.

The chief defended harbours and coaling stations on these lines are :—

ATLANTIC AND PANAMA ROUTES.





Fortification of coaling or oiling stations is the usual method of protecting the lines of communication. But indirect protection is also secured by the existence of flanking stations belonging to friendly foreign Powers, and by the preservation of the defence of these lines through the making of treaties. Thus, in the Allenby agreement with the new kingdom of Egypt, made in 1923, there was a clause providing for the retention of British troops on the Suez Canal, part of a sea corridor absolutely vital to the maintenance of communications with India and the Far East; and in the treaty between Great Britain and the Irish Free State, Cork Harbour, Berehaven, Blacksod Bay, and Lough Foyle were retained as bases for the British Fleet from which it could patrol the Irish coast. Obviously, it would be foolish to allow the long inlets of the southern and western coasts of Ireland to become lurking places from which enemy submarines or aircraft could dart out and wreck our sea-borne traffic.

Those Powers with overseas possessions flanking British lines of communication with which Great Britain maintains friendly relations include France, Italy, Portugal, Japan, and the United States. On every route Great Britain may be grateful for the "entente cordiale" with France. On the Atlantic Route the islands of St. Pierre and Miquelon near the entrance of the Gulf of St. Lawrence flank the principal passage to Montreal. On the Panama Route Martinique in the West Indies lies less than 50 miles from St. Lucia, our

" Gibraltar of the Caribbean," and the Panama Canal, while in the South Pacific Tahiti (Papeete), a coaling station used by British vessels, covers the line from the Canal to the ports of Australasia. On the Mediterranean—Suez and Cape lines the advantage of the alliance with our old rival is even more marked. The great harbour of Brest keeps watch and ward over every vessel that passes to and fro between Gibraltar and the hub of the Commonwealth ; the route from Gibraltar to Port Said is intersected by a direct line joining the French naval bases of Toulon and Bizerta ; Malta has a counterpart in Algiers as Gibraltar may have in Tangiers ; French Somaliland (Djibuti) lies opposite to the Aden Protectorate, and further east the route from Singapore to Hong-Kong is flanked by Hué in Annam of French Indo-China. Lastly, just off the main line to the Cape there are the western ports of the Morocco Protectorate, Gorée and Dakar of Senegal and of French Guinea, and round the corner on the way to India—not far from British Mauritius—French Réunion backed by French Madagascar.

Italy has no station of much account in Italian Somaliland or in Tripoli, but in the Middle Sea—the world's greatest highway, the freedom of whose passage has for the last 75 years been the joint task of Italy and Great Britain, linked in a tacit naval entente, Trieste, Brindisi, Genoa are within easy reach of the Mediterranean—Suez Route.

Portugal is an old ally of Great Britain. Her declension as a great naval power almost coincided with the growth of Greater Britain, and the integrity of her colonial empire depends on this alliance.

By the Portuguese possession of Angola (Lourenço Marques) and Mozambique the South African salient, in which no hostile vessel can anchor, is lengthened out to 2,000 miles north-east and north-west of the Cape. Further, Madeira and Cape Verde correspond to Ascension and St. Helena, while across the Atlantic is the Republic of Brazil, formerly a Portuguese colony.

The naval stations of the United States flank British lines of communication on the Panama Route, and on the continuations of the Atlantic Route, both to the Panama Canal and across the Pacific Ocean.

On her eastern coast the United States has the naval bases of Portsmouth, Boston, Newport, New York, and Key West (Florida). On the west are those of Seattle, Portland, San Francisco, Los Angeles, and San Diego.

Through her ownership of the Sandwich Islands (Pearl Harbour, on the island of Honolulu), of the Ladrones (Guam), and of the Philippines (Cavite and Olongapo in Manila Harbour) virtual control of much of the North Pacific and of its seaways has passed to the United States, while her tenure of part of Samoa (Pago Pago, on the island of Tutuila) gives her the same strategic position in relation to the Panama Route that France possesses in Tahiti.

All the Japanese stations flank the line from Vancouver to Hong-Kong. From north to south the most important are Yokosuka, Kure, Sasebo, Maizuru, Takeshiki, and Ominato.

We can now deal with the routes in greater detail. (All distances are given in round numbers, and a steaming day is reckoned as 400 miles).

1. *The Atlantic Route.*

Owing to the action of the Gulf Stream and the cold current flowing from the Arctic Ocean, British ports on the Atlantic Ocean are open all the year round, whereas Canadian ports in the Gulf of the St. Lawrence in the same latitude or even farther south are blocked by ice in winter, and then rendered hard of approach by fog.

In the winter, therefore, the ice-free ports of Halifax, Nova Scotia, and St. John, New Brunswick, the termini of the Canadian Pacific Railway and the Canadian National Railways respectively, have to be used instead of Quebec and Montreal.

The distance from Liverpool to each of these ports is :—

Liverpool to Halifax, 2,492 miles.
Liverpool to Quebec, 2,630 miles.
Liverpool to Montreal, 2,760 miles.

An alternative route to western Canada will be provided when the Hudson Bay Railway from Winnipeg by way of Le Pas to Fort Churchill is completed. Fort Churchill will not be an ice-free port, and will be subject to the same seasonal limitation as Quebec and Montreal.

But, while the distance from Liverpool to Fort Churchill by sea is 3,034 miles, or 274 miles longer than from Liverpool to Montreal, the opening of this new harbour will shorten the journey to Prince Rupert, the eastern terminus of the Grand Trunk Pacific section of the Canadian National Railways, for five months of the year, as against the present route via Montreal by 1,400 miles, inasmuch as Liverpool to Vancouver, via Fort Churchill, is 4,500 miles, and Liverpool to Vancouver, via Montreal, 5,900 miles. Moreover, for the shipment of Canadian wheat Fort Churchill will prove invaluable, as at present, because of the wheat congestion, due to the short summer and the freezing up of the St. Lawrence, Duluth on Lake Superior becomes a serious rival to Port Arthur. With a new outlet to the Atlantic this rivalry may well diminish.

It will be noticed that no part of the Atlantic Route—unless the voyage starts from Southampton, which is opposite the French shore and Brest—is flanked by an inhabited foreign coast. Moreover, the Great Circle, if prolonged beyond Halifax, passes close to Boston, New York, and Chesapeake Bay.

The chief British station on the branch Atlantic line leading to the Panama Canal is the Bermudas, 2,800 miles from Liverpool. The Bermudas is a small Crown colony, consisting of a singular collection of submerged sandbanks and coral reefs with an area of 20 square miles, and a population of 20,000, lying 800 miles off the coast of the United States in the centre of a great bay, bounded to north and south by Newfoundland and the Windward Islands. It is thus almost equi-distant from Cape Race (Newfoundland) and Barbados, Cape Sable (Nova Scotia) and St. Thomas, and from the three entrances to the Caribbean Sea, and within 650 to 750 miles of all the American stations on the east coast, as well as Halifax. It is 730 miles from Halifax, and 677 miles from New York.

Its isolation, central position, and small population make its chief port (Hamilton, on Ireland Island) the natural station for the British North Atlantic Fleet.

The route to the West Indies is also flanked at a considerable distance by the Cape Verde Islands (belonging to Portugal), and by Madeira and the Canary Islands belonging

to Spain, which are possessions of non-military powers. Except for Cuba and Hayti, which are independent, the West Indies are divided between Great Britain, the United States, and Holland.

The total population of the British West Indies, including the mainland colonies of British Guiana and British Honduras, is approximately 2½ millions.

Our most important station in the islands is Jamaica, with a good harbour and fuel station at Kingston, only half a day's journey in a fast cruiser from Colon. Jamaica is off the direct line from Great Britain to the Pacific through the Panama Canal (Southampton to Colon, the Atlantic entrance to the Canal—direct is 4,000 miles; Southampton to Colon via Jamaica is 5,250 miles). Jamaica is almost the same distance from Key West (the American naval base in Southern Florida) as from Colon.

Jamaica, also, flanks the direct route from New Orleans, the great cotton port of the United States, to the Canal, commands the line from New York, passing between Cuba and Hayti, and is connected by cable with Halifax via the Bermudas in one direction and with Trinidad and British Guiana in the other. Admiral Mahan held that for these reasons Jamaica was one of the most important islands in the world.

St. Lucia, 1,000 miles distant, the centre of the Windward group directly facing the Canal, has been called the Gibraltar of the West Indies.

We may now consider the continuation of the Atlantic Route across the American continent. Canada is crossed by two lines of railways, the Canadian Pacific Railway, and the Grand Trunk Pacific and Canadian Northern sections of the National Railways.

All these railways might prove a useful alternative in case it was necessary to use this route for concentration of men and material either in Europe or in the Far East.

There are, however, a good many countervailing disadvantages.

In the first place there is the unavoidable transhipment at both ends of the railway.

Secondly, there is an increase in distance over the Mediterranean—Suez line even to Hong-Kong, a difference

which becomes very noticeable when the journey is being made to an Indian port, such as Madras.

By the Atlantic Route via Canada and the Pacific.		*Via Mediterranean—Suez Route.*	
Summer.	*Miles.*		*Miles.*
Liverpool to Montreal ...	2,750		
Montreal to Vancouver ...	2,958		
Vancouver to Hong-Kong (Sea distance, 8,610 miles)	5,860	Liverpool to Hong-Kong ...	11,440
	11,560		
Winter.			
Liverpool to Halifax ...	2,490		
Halifax to Vancouver ...	3,775		
Vancouver to Hong-Kong (Sea distance, 8,550 miles)	5,860		
	12,120		

Thirdly, the sea voyage between Vancouver and Hong-Kong, even if a break is made at Yokohama, is longer than the longest stretch on the other route.

Lastly, the course passes close to a large number of Japanese ports outside the fortification limit set by the Washington Conference, and is flanked by Pearl Harbour, belonging to the United States, and also outside the area of non-fortification. Pearl Harbour would, in hostile hands, be a serious menace to the route between British Columbia and Australasia. Even if Pearl Harbour was available for use, it is still a much slower way of travelling from Australia (Sydney) to Great Britain than by the Suez Canal.

As before, by the Atlantic Route :—

	Miles.
In summer from Liverpool to Vancouver is	5,708
Vancouver to Sydney via Honolulu and Suva (Fiji) is	6,848
	12,556
and in winter is	13,113

while by the Mediterranean—Suez Route it is approximately 11,400 miles from Liverpool to Sydney. On the other hand, this is a quicker method of getting to New Zealand (Auckland) than by the Mediterranean—Suez Route, the Cape Route, the Panama Route, or the Cape Horn.

	Miles.
By the Atlantic Route in summer from Liverpool to Auckland is	11,905
in winter from Liverpool to Auckland is	12,465
By the Cape Route	13,285
By the Panama Route	13,418
By the Suez—Mediterranean Route	13,054
and round Cape Horn	12,487

2. *The Panama Route.*

The Panama Canal opens on its western side into an inland sea barred by the West Indies and divided into the Gulf of Mexico on the east and the Caribbean Sea on the west. Its total length is 49 miles, it has a rise of over 300 feet, and it will take vessels drawing over 40 feet. From the Atlantic the entrance to the Gulf of Mexico is through the Florida Channel (between the American mainland and Cuba) and into the Caribbean Sea through the Windward passage on the east (between Cuba and Hayti), the Mona passage on the west (between Hayti and Porto Rico), and the Barbados passage between St. Lucia and St. Vincent. All lines coming from eastern American ports, with the exception of that from New Orleans, to the Panama Canal pass through one or other of these straits or through the "Anegada passage," east of Porto Rico.

To all intents and purposes Jamaica and St. Lucia (Castries) in the Windward Islands close the entrance to the Panama Canal.

The Canal itself may be considered first of all in relation to the United States.

As the United States Government built the Canal, so does it own and operate it. It is not, therefore, as the Suez Canal, governed by a Board of Governors, but is owned solely by the Government of the United States. There is no private company, there are no shares, and no one except the American Government has any vested rights in the Canal, except in so far as the treaty rights of the Republics of Panama and Colombia are concerned. Moreover, sanitation and administration, as well as maintenance, operation, and protection of the Canal belongs exclusively to the United States Government, which guarantees free transit of the commercial and war vessels of all countries in peace and war, unless the country concerned is at war with the United States. These arrangements were concurred in under the Hay—Pauncefote Treaty of 1901. The tolls are practically the same as those for the Suez Canal, with a little more liberality in respect of net tonnage.

In 1850 the United States signed a treaty with Great

Britain known as the Clayton—Bulwer Treaty, under which the United States agreed not to construct a trans-oceanic canal save as a joint enterprise with Great Britain. Between 1850 and 1901 American interests in the Caribbean Sea increased, so that in the latter year a new treaty was signed—the Hay—Pauncefote Treaty, under which the United States was left free to construct a canal by herself, provided that the Canal was always open to the ships of all nations on the same terms.

The fortification of the Canal has always been a matter of argument. It is now fortified with heavy gun batteries at the termini, island defences, field works, and by a mobile force of 7,000 men. On August 24, 1912, the United States Congress passed the Panama Canal Act, under which privileges were given to certain classes of American shipping using the Canal. The British Government lodged a protest against some of the provisions, which it regarded as involving a violation of the Hay—Pauncefote Treaty. After much discussion and many suggestions, President Wilson, on March 5, 1914, requested Congress to repeal that provision of the Act which discriminates between American and other vessels, holding that the exemption was "in plain contravention of the Treaty with Great Britain concerning the Canal concluded on November 19, 1901." The Repealing Bill was signed on June 15, 1914.

What effect is the Panama Canal likely to have on the political, commercial and strategical situation in the Pacific Ocean ?

(1) It is bound to affect the distribution of the population of the world by assisting the colonization of the American Pacific coast and Western Canada. "That a ship load of emigrants can be carried through relatively quiet seas to the Pacific Ocean direct to the Pacific ports, without the tiresome and expensive trans-continental journey by rail, will be an inestimable contribution towards overcoming the problems of distribution and of labour." This may even affect Australasia, and will certainly help in the retention of a white Canada and white California.

Value of Imports into Australia from United States, 1918-1921.		*Percentage of Whole.*	*Percentage of Imports from Great Britain in Relation to Whole.*
1919-1920	£23,768,020	26	48
1920-1921	£35,601,735	22	52

The chief purchases of New Zealand and Australia from the United States are tobacco, kerosene, and boots and shoes, but of late hosiery, hardware, clothing, and cotton goods of American make are finding their way across the Pacific.

(3) Great Britain derives very little strategic advantage from the Canal. The distances from Plymouth to Hong-Kong by three alternative routes, the time taken being calculated on a basis of 400 miles a steaming day, are as follows :—

	Miles.	*Days.*
Suez Route	9,500 ...	24
Cape Route	12,800 ...	32
Panama Route	12,600 ...	31½

Granted that the Panama Route is 200 miles or half a day shorter than the Cape Route, the route by the Panama Canal has all the disadvantages of locks, few fuel stations, restricted waters, and a strong current setting westwards.

From Plymouth to Sydney both the Cape and Suez Routes are shorter, the former by 3¼ days.

	Miles.	*Days.*
Suez Route	11,200 ...	28
Cape Route	12,300 ...	30¾
Panama Route	12,500 ...	31¼

As we move further west the difference in the distances becomes more marked.

Moreover, the Great Circle Route from Panama to Yokohama passes within 300 miles of San Francisco, which thus becomes the key and "gateway" of the Pacific. This route across the Pacific is also flanked, though at a distance of 1,700 miles, by the Hawaiian Islands and by Pearl Harbour, and there is no fuel station between Colon and Fiji (Suva). To New Zealand the gain in time is more than counterbalanced by the strategical disadvantage of a canal under foreign control, and the long gap across the Pacific with no British naval stations. As has been pointed out by Dr. Vaughan Cornish, the longer the uninterrupted voyage, the greater the area that has to be searched and swept for foreign vessels. Only if it was necessary to concentrate a British

Fleet in the North-East Pacific, provided the United States was a benevolent neutral or in active co-operation, might the Canal be really useful.

On the other hand, the Canal, from the American point of view, has great strategical importance. It provides an easy way of linking up the Atlantic and Pacific fleets of the United States. During the Spanish-American War of 1898, the Atlantic Fleet had to steam over 13,500 miles round Cape Horn before it reached its striking point in Manila Bay. By the Panama Route from Key West and New Orleans the sea journey to Pearl Harbour, the chief naval base of the United States, and to the Philippines has been halved in time and distance. The Canal has consequently doubled the striking force of the American Navy.

3. *The Mediterranean—Suez Route.*

This is the most used of all the lines of communication as the shortest route from Great Britain to India and the Far East. The distances from the important points along the route are as follows :—

From	*To Liverpool.*	*Gibraltar.*	*Malta.*	*Port Said.*	*Aden.*	*Colombo.*	*Singapore.*	*Hong-Kong*	*Yokohama.*
Liverpool ...	—	1343	2334	3270	4580	6672	8149	9589	11269
Gibraltar ...	1343	—	991	1927	3237	5329	6906	8346	9926
Malta ...	2334	991	—	936	2246	4338	5915	7355	8935
Port Said ...	3270	1927	936	—	1310	3402	4979	6419	7999
Aden ...	4580	3237	2246	1310	—	2092	3669	5109	6689
Colombo ...	6672	5329	4338	3402	2092	—	1577	3017	4597
Singapore ...	8149	6906	5915	4979	3669	1577	—	1440	3020
Hong-Kong ...	9589	8346	7355	6419	5109	3017	1440	—	1580
Yokohama ...	11269	9926	8935	7999	6689	4597	3020	1580	—

The first British possession reached on the voyage is Gibraltar on the north side of a narrow channel 7 miles wide, through which the Home and Mediterranean Fleets have to pass to effect a juncture.

Gibraltar, a fortified fuel station, with a large dockyard, stands on a rocky promontory near the southern extremity of Spain, from which it is separated by a neutral zone 8,000 to 9,000 yards in breadth. It is a Crown colony, with an area of nearly 2 square miles, and a civilian population of 20,000, and is a station for British troops. It was originally

captured from Spain by Sir George Rooke, in 1704, and was ceded to Great Britain by the Treaty of Utrecht in 1714. The climate is typical of the Mediterranean, being hot and droughty in summer, and mild and rainy in winter. Gibraltar itself is 25 miles distant from the nearest portion of the opposite coast of North Africa, which lies within the zone of Spain. The guns of Gibraltar cannot, therefore, reach the African shore, but are meant for defence of the harbour.

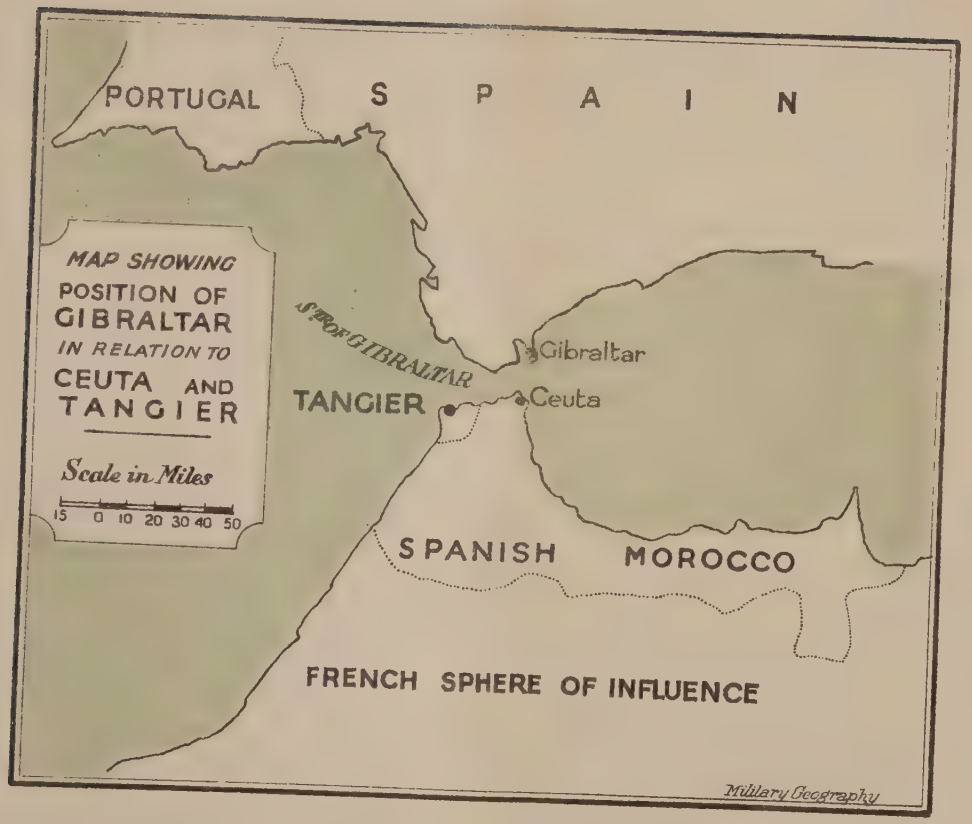
The only possible danger to Gibraltar might come from Tangier. Tangier has, since 1912, been governed by the diplomats accredited to the Sultan of Morocco, and is regarded as an "International" reserve with a "*caractère special*," a Spanish zone intervening between the town and the French protectorate of Morocco. In 1919 France obtained a sphere of influence in Tangier on the ground that it was originally part of old "Marocq." The future of Tangier has now been determined by Great Britain, France, and Spain. The Tangier Convention, which was signed on December 18, 1923, by the representatives of France, Italy, and Spain, is to last in the first instance until 12 years have elapsed. By this Great Britain's desire for the permanent neutrality of Tangier, the open door for trade, and a large measure of internationalism has been gratified.

The government of Tangier is to be divided into two divisions (*a*), administration of the natives by a representative of the Sultan of Morocco, and (*b*), for all other purposes, administration by a committee of control, consisting of the consular representatives of eight Powers, and an International Legislative Assembly of 26 members, 4 of which are to be French, 4 Spanish, and 2 British, 6 Moslems, and 3 Jews.

In view of its position at the narrow entrance to the Mediterranean Sea, Tangier might easily become, in the hands of any one Power, a formidable submarine base, and its fortification would make it a far more valuable military outpost than Gibraltar.

Nearly 1,000 miles from Gibraltar, and half way between Gibraltar and the Suez Canal, lies Malta.

Malta is not only on the direct line between Gibraltar and the Suez Canal. It is also in the centre of the Mediterranean. Its isolation, its absence from land frontiers, its equi-distance


PORTUGAL
S P A I N
MAP SHOWING
POSITION OF
GIBRALTAR
IN RELATION TO
CEUTA AND
TANGIER
Scale in Miles
15 0 10 20 30 40 50
STR. OF GIBRALTAR
Gibraltar
Ceuta
TANGIER
SPANISH MOROCCO
FRENCH SPHERE OF INFLUENCE
Military Geography

from the nearest shore to north and south—it is 200 miles from Cape Bon and 180 miles from Messina—give it a commanding position with regard to both east and west. It can control the east through the narrow straits of Messina, or through the channel between Cape Bon and the Sicilian coast. Naval action in the Mediterranean, based on Malta, starts with an overwhelming advantage. Consequently, Valetta, its capital, which is the headquarters of the Mediterranean Fleet, has an excellent dockyard, a strongly-fortified harbour, an air station, and a high-power wireless.

The summers are very hot and dry, and the winters warm and moist.

Malta was captured from the French in 1800. It was provided in the Treaty of Amiens (1812) that it should be restored to the Knights of St. John of Jerusalem, in whose possession it had been after their expulsion from Rhodes in 1530, until conquered by the French in 1798, but this restoration was prevented by the re-commencement of war, and it was finally transferred to British control by the Treaty of Paris (1815). With Gozo and Comino, daughter islands, Malta has an area of 118 square miles, and a population of 200,000, most of whom speak Maltese, a dialect of Arabic origin, though British and Italian may also be used in the courts.

Malta is one of the most thickly-populated portions of the world. There is an annual emigration, mainly to the United States, of 1,200 Maltese. With the present American restriction on immigration, it is proposed to divert this stream to South America.

Cyprus (Nicosia) lies a little off the main line, and is only garrisoned with half a company of British troops. In wartime, however, it makes a useful base especially for operations in the Levant, as it is only 115 miles from Beirut, the principal seaport of Syria, and the terminus of the Damascus railway. Cyprus was "occupied" in 1878 as a set-off against Russian occupation of Turkish provinces in Transcaucasia.

By the Treaty of Sèvres (1920) Cyprus is linked with Rhodes, which has been held by Italy since 1912. If, in 1925, the people of Rhodes decide to revert to Greece, Italy will retire if Great Britain will surrender Cyprus, to which she has first to get the consent of France.

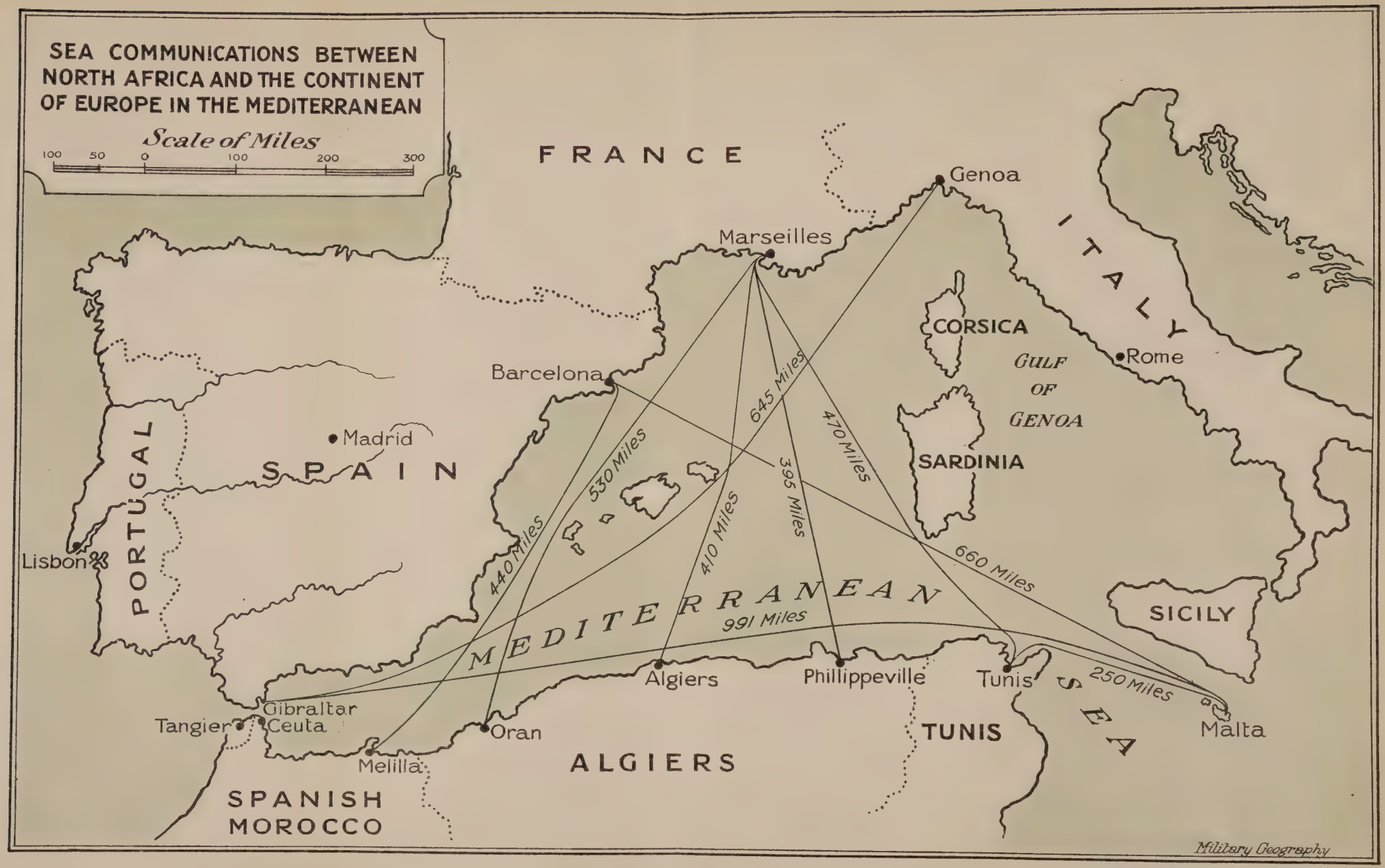
Port Said, at the entrance to the Suez Canal, is roughly 240 miles from Cyprus. The Suez Canal runs for 99 miles at sea-level between Port Said and Port Ibrahim. It cannot be blockaded, it is entirely unfortified, and is open to all armed and unarmed vessels of all nations in peace and war.

It was opened in 1869, and is controlled by a private company, The Suez Canal Company (Paris), in which, since 1882, Great Britain has owned a majority of the shares. Owing to the strategical importance of the Canal, which is the centre of the Commonwealth, and one of its essential necks, its defence by British forces is absolutely necessary. The only way to defend the Canal is to strengthen the western, or Egyptian, bank, as on the other side it is separated by the desert peninsula of Sinai from any possible base of supply. In 1915 the Canal became a formidable barrier against Turkish troops who had concentrated at Damascus and successfully crossed the Sinai desert, but were unable, on two successive days, to force its passage. The Canal zone remains, under the Allenby Agreement, even since the independence of Egypt, a British military reservation.

The concession to the Suez Canal Company expires on November 17, 1968.

Ismailia, half-way on the railway between Port Said and Suez, at the end of the freshwater canal from the Nile, and near El Kantara, the point where the new railway between Cairo and Jerusalem crosses the canal, is an excellent base for the concentration of the scattered forces of the Commonwealth. It is central, it is free from malaria, and the climate is bearable—often very hot but always dry. So long as the relations of Great Britain with Mediterranean powers remain friendly, so long is the best and safest passage to the East secured. Even if the Suez Canal be lost, the Red Sea could be blocked at the Straits of Babelmandeb, in which lies the British island of Perim, with its fuel depot, only 9 miles from Africa and $1\frac{1}{2}$ miles from the Arabian coast.

In 1916 it was from El Kantara that Lord Allenby began his victorious march to Jerusalem, carrying his railway forward as he went.


SEA COMMUNICATIONS BETWEEN NORTH AFRICA AND THE CONTINENT OF EUROPE IN THE MEDITERRANEAN
Scale of Miles
100 50 0 100 200 300
FRANCE
Genoa
Marseilles
ITALY
CORSICA
Rome
GULF OF GENOA
Barcelona
645 Miles
470 Miles
530 Miles
395 Miles
410 Miles
440 Miles
660 Miles
991 Miles
SARDINIA
Madrid
SPAIN
PORTUGAL
Lisbon
MEDITERRANEAN
SICILY
Algiers
Phillippeville
Tunis
250 Miles
SEA
Gibraltar
Tangier
Ceuta
Oran
TUNIS
Malta
Melilla
ALGIERS
SPANISH MOROCCO
Military Geography

Equidistant from Zanzibar, Port Said, and Bombay, Aden is the natural entrepôt for the products and imports of East Africa, as well as a fuel station. Aden has belonged to Great Britain since 1833. Its site, on a rock 5 miles long by 3 miles broad, is so sterile that all provisions and firewood have to be imported, and it is so dry (and hot) that water is obtained by the condensation in tanks of sea water steam, or brought by aqueduct from wells in the interior. The average monthly temperature is 84° at Aden, as compared with 83° at Zanzibar, 82° at Khartoum, and 70° at Cairo. The people of the Aden hinterland are Arabs.

Opposite Perim on the Arabian side is the French port of Sheik Said, but beyond that there is a British sphere of influence in the Makalla Sultanate. Along the coast this protective influence also stretches over the southern coast of Arabia as far as Koweit, inclusive of Oman and the shores of the Persian Gulf.

On the African coast the protectorate of British Somaliland, overshadowing French Somaliland, Italian Somaliland, and Eritrea, flanks the continuation of the main Mediterranean—Suez line on its way to the East.

The route from Aden to Colombo crosses the Indian Ocean. The Indian Ocean has been called a "British Lake." This statement implies that it is screened on practically every side by British possessions.

We have already realized the importance of holding the Mediterranean entrances to the Indian Ocean. In Singapore, also, Great Britain holds the Pacific door, the value of which is enhanced by the occupation of the large and numerous groups of islands between the Indian Ocean and the China Sea by Holland, which is no longer a great naval or military power.

Between Singapore and Aden lies Iraq—a British sphere of influence with British control up to Kurna, the junction of the Tigris and Euphrates—and India. South of Singapore, Australia holds a mandate for German New Guinea and guards the south-western extension of the shoreline.

On the western side of the ocean, British Somaliland is succeeded by Kenya, Tanganyika Territory, Zanzibar, and with the break of Mozambique, by the Union of South Africa. There is not a single harbour on the shores of the

Indian Ocean which can be reached with a railway leading from the country of a Great Power, and both Germany and Russia have been baulked in their desire for a warm water port. Even if Turkey develops in accordance with her ambitions, Iraq, the corridor between Turkey and Persia, lies within the British sphere.

4. *The Cape Route.*

Though longer than the Mediterranean—Suez Route this route provides an alternative means of reaching India, the Far East and Australia, in case the Mediterranean route is out of British hands.

The actual distances from Liverpool to Calcutta, Melbourne and Hong-Kong by both routes are as follow :—

Liverpool to—	*Via The Cape.*	*Via The Suez Canal.*
Calcutta	9350 miles (24 steaming days)	7876 miles (20 steaming days)
Melbourne	11905 miles (30 steaming days)	11647 miles (29 steaming days)
Hong-Kong	11136 miles (28 steaming days)	9662 miles (24 steaming days)

The line of passage most affected by the possible loss of the Suez Canal would be that from Liverpool to Calcutta, or Bombay. To Calcutta, the addition of 1,700 miles would entail an extra four days at sea. To Bombay, the loss would be greater, as the canal is so much nearer the western coast of India. Four days in a long war would be immaterial, but in the early stages where surprise might be the turning point, it might seriously minimize the rapid concentration of troops.

For bringing troops from Western Canada, from any point west of Regina, Saskatchewan, to India, that is to say Calcutta, the route by the Straits of Malacca would be better than the Cape route.

	Approximately.
Vancouver to Calcutta, via Singapore	... 8680 miles.
Halifax, Nova Scotia, to Calcutta	... 9646 miles.

The Cape route has one great advantage in the central position of Cape Town. If a line is drawn from Cape Town to selected ports of the chief possessions of the Commonwealth, the average variation in distance from any port is under 500 miles.

Cape Town to Bombay	5087 miles	Average distance, 5759 miles.
Cape Town to Halifax, Nova Scotia ...	6403 miles	
Cape Town to Melbourne	5814 miles	
Cape Town to Liverpool	6147 miles	Average variation, 413 miles.
Cape Town to Port Said	5846 miles	

If we compare these figures with those for Port Said and the same ports we shall get :—

Port Said to Bombay	3047 miles	Average distance, 4810 miles. Average variation, 1387 miles.
Port Said to Cape Town	5346 miles	
Port Said to Halifax, Nova Scotia ...	4571 miles	
Port Said to Melbourne	7842 miles	
Port Said to Liverpool	3243 miles	

South Africa is, therefore, the most central of any British possession which is also a recruiting base.

Moreover, to Australasia, as we have seen, the Cape route is only 1,000 miles longer than the Mediterranean–Suez route, and Cape Town lies almost exactly half-way between Liverpool and Melbourne.

Liverpool to Cape Town	6147 miles.
Cape Town to Melbourne	5814 miles.

From Halifax, Nova Scotia, to Melbourne there is very little difference in the two routes. The direct route by way of Aden is a little the longest, that by way of Cape Town a little the shortest of the three.

Halifax to Melbourne, via The Cape	12217 miles.
Halifax to Melbourne, via Colombo	12413 miles.
Halifax to Melbourne, via Aden	12426 miles.

Cape Town also lies directly in the Great Circle course between Cape Verde, a Portuguese possession which lies off the extreme western point of Africa, and Tasmania, and is thus the obvious port of call—a break in the journey—for vessels crossing the south of the Indian Ocean. Between Cape Town and Hobart, Tasmania, a distance of 5,838 miles, there is no land except the icebound Antarctic continent to the extreme south.

If a hostile vessel succeeds in passing the Cape, she has no possible fuel or refilling station to make use of. Moreover, the actual passage past the Cape is itself a difficult matter. All the ports of South Africa are British for a thousand miles north and south of Simon's Bay, which lies on False Bay behind Table Mountain, and the route is flanked by Ascension and St. Helena (James Town) in the Atlantic Ocean, and the distant but proved Falkland Islands (Port Stanley), and in the Indian Ocean by Mauritius (Port Louis), the Chagos Archipelago (Diego Garcia), and

the Seychelles (Port Victoria). All of these, except Mauritius, which has a population of 400,000, mostly Indian coolies, working on the sugar plantations, are small islands of value only as fuel stations.

If we reckon on a friendly Portugal, and a friendly Brazil, inhabited by a people of Portuguese stock, the position of the Cape is even more secure.

Consequently, South Africa must be given a wide berth, and a British fleet operating on interior lines can force the enemy out into the open and inhospitable sea. In 1795–1797, though Great Britain was mistress of the seas, the French who held the Cape sank 1,475 British vessels on the way to the East.

The geographical conditions prevailing on the alternative or Cape route between the east and west of the Commonwealth are thus all in favour of Great Britain.

CHAPTER VII

Communications by Air.

The great sea routes of the Commonwealth have been traversed and are being traversed every day by its ships seeking or returning from the uttermost parts of the earth. At any given moment 1,000 British ships are on the "common" of the sea.

The great air routes of the Commonwealth have been but once or twice traversed, and the daily, hourly traffic is for the future.

If, however, little is being done to-day in actual communication, many valuable suggestions pregnant with possible development have been made as to the practicability of linking the Commonwealth by air.

Consequently, this chapter will deal with :—

1. The general principles which determine the choice of air routes.
2. The present British air lines—both civil and military—in operation.
3. The future of inter-Commonwealth aviation in the light of practical suggestions already put forward.
4. The attempts—successful and otherwise—made to overcome the difficulties of inter-Commonwealth communication.
5. The principal air routes of Foreign Powers.

We may take it as a general rule that (1) the line of flight of an aeroplane or airship will follow :—

(*a*) The course of a river,
(*b*) A line of railway,
(*c*) A well-marked road,
(*d*) A telegraph line,

and that it will avoid, if possible :—

(*a*) High mountains,

(*b*) A long stretch of sea,

(*c*) Desert,[1] uninhabited or bush covered country, and that

(2) Aerodromes will be established at distances of not less than 300 miles along the line.

This necessity may, of course, be obviated to a certain extent by the use of directional wireless. With its use an aeroplane may well leave a road or river in a flat, inhabited country, and rely almost entirely on wireless control. But in all cases, it is the easiest route that is desired, and such a route will naturally make the best use of the natural features of a country. For even if time is lost in this way, distance is often gained over the sea, owing to the fact that aerial communication proceeds more or less directly while sea routes are bound to follow where the sea is.

Lines in Operation.

(a) Civil Lines.

From Great Britain to the Continent of Europe.—The actual services in operation are :—

Handley-Page : London—Paris—Zurich.

Daimler : Manchester—London—Amsterdam—Hamburg—Bremen—Berlin.

British Super-Marine Air Navigation (*connected up with Königsberg and Moscow*) *:* Southampton—Channel Islands (this is to be extended to Cherbourg to connect up with trans-Atlantic liners).

Instone : London—Brussels—Cologne.[2]

It may be noticed that within the British Isles only Manchester is at present linked up with London by air.

The Instone service to Cologne is remarkably fast. The distance is 330 miles, and the record is held by a non-stop run of 2 hours 8 minutes, with an average speed of 163 miles an hour. The machine that achieved this feat carried three quarters of a ton of passengers and freight. The normal time for a journey from London to Cologne by train, boat and train is from 15 to 20 hours.

[1] Note, however, the Cairo—Baghdad Line.

[2] There is also a Carlisle—Belfast service operated by the Northern Airways, Ltd.

There is also a new service that was inaugurated under arrangement with Czecho-Slovakia in the summer of 1923, between London and Prague. This service is only temporary, for a year, but if it works satisfactorily, the temporary agreement will be made permanent.

Great Britain will then become the preponderating Power in civil aviation between London and Central Europe, and will eventually provide for the service as far as Budapest. Czecho-Slovakia lying athwart the great railways that cross Central Europe, is likely in the future to contain a great free aerial port for the junction of the aerial lines of all nations.

The direct distances are, approximately :—

	London.	*Prague.*	*Budapest.*
London	—	700	1030
Prague	700	—	330
Budapest	1030	330	—

These can be but beginnings—for at present Great Britain lags behind other countries in the length and completeness of her air routes. Not only is her continental service capable of extension, but there are great possibilities in air communications within the United Kingdom.

If there are air lines in operation from :—

	(*Approximately*)
London or Paris	300 miles.
London to Prague	700 miles.
London to Brussels	200 miles.
London to Amsterdam	200 miles.
London to Berlin	530 miles.
London to Cologne	330 miles.

why should not similar lines be carried from :—

	(*Approximately*)
London to Glasgow	395 miles.
London to Edinburgh	396 miles.
London to Newcastle-on-Tyne	275 miles.
London to Cardiff	170 miles.
London to Penzance	306 miles.
London to Liverpool	199 miles.
London to Holyhead	260 miles.

or short lines from points difficult to reach by railway, *e.g.*, from Bristol to Brighton—70 miles, Bristol to Liverpool—90 miles.

To take Glasgow and Edinburgh alone. These cities are 100 miles farther from London than Paris, and in the course of twenty-four hours there are at best each way three or

four eight-hour trains, two or three twelve-hour trains, and two or three of intermediate slowness. The journey could be done well within four hours by aeroplane, and if there was a constant service every three hours, there would be abundance of freight, whether of letters or of parcels. This is the civil side of such a route. In all consideration of civil services there is the obvious implication of their adaptability to military use in time of emergency.

The Hambling Committee of 1923 suggested the acquisition by the Government in time of need, of all machines, engines and plant. Any improvements in *matériel*, and improvement has been constant since the war, are thus at the disposal of the nation in the nation's stress.

The future of civil aviation is now partly dependent on the £1,000,000 subsidy spread over ten years offered by the Air Ministry to any company that will undertake, by April 1, 1924, to be prepared to operate a London-Continental service with a capital of £1,000,000 of which half shall be fully paid up. This proposal has now been taken up by the following grouped companies—the Instone Line, the New British Super Marine Air Navigation Company, the Handley-Page Company, the Daimler Airways, Limited—under the name of the Imperial Air Transport Company, Limited.

While the numbers of lines and machines may be less, the British aeroplanes have secured a dominating position, even on the London—Paris service, where there is French competition. For the first seven months of 1923 every available machine was in commission, and ran to its full capacity. Cargo was especially heavy from Cologne, often for transhipment, and manufacturers are beginning to appreciate the advantage of speed even if air rates are somewhat higher than those by rail and sea. Moreover, the aeroplane is proving itself for the delivery of urgent letters. After 11 a.m. at the General Post Office or fifteen minutes after the acceptance of mails ceases at the post office at Croydon Aerodrome, substituted for Hounslow as the London air terminus, the aeroplanes leave. This ensures delivery the same evening in Paris in time for the night mails, as well as in Antwerp, Brussels, and most parts of Holland including Amsterdam, to connect with the night mails for Germany, Norway, and Sweden.

Similarly, a letter posted at the General Post Office before 7.30 a.m. catches an early French machine and arrives in Casablanca on the morning of the third day, thus saving from two to four days, while a packet posted before 6 p.m. on alternate Thursdays gets to Iraq and Persia within ten days, or in sixteen days less than by the ordinary route.

Outside Great Britain, but within the Commonwealth, there are also two exceedingly useful routes of moderate length in Australia, and an exclusively military line in the Middle East.

Much of the previous paragraphs is countered by the interim report of the Air Mails Committee, issued in January, 1924, which doubts the value of local air mail services [1] owing to :—

(*a*) Absence of night flying.
(*b*) Non-regularity due to climatic conditions.
(*c*) Financial considerations.

On the other hand, the Committee recognized the possibility of :—

(*a*) Aeroplanes as links in a combined steamer-rail-air service, as for instance between London—Rotterdam (steamer), Rotterdam—Malmö (air), and Malmö—Stockholm (railway).

(*b*) The Burney Airship Scheme, referred to on page 181.

The Australian lines are as follow :—

	Miles.	
Cloncurry to Charleville, Queensland	550	
Geraldton to Carnarvon, W. Australia	175	1195
Carnarvon to Derby	1020	
Derby to Perth	1465	
Total ...	3210	

(This latter section is the longest in the Commonwealth.)

The Cloncurry—Charleville service is especially valuable, as it links up the ends of two disconnected lines.

Australia also hopes in a short time to connect Sydney with Adelaide (760 miles), and with Charleville, Adelaide with Port Lincoln, and later to join up Perth and Gladstone with Cairns and Melbourne with Tasmania. Moreover, the Commonwealth Government is considering the

[1] One answer to this was the European business trip, in April and May, 1924, of Mr. A. S. Butler, of the De Havilland Company on a D.H. 37, visiting *en route* Paris, Lyons, Nice, Milan, Venice, Zagreb (Yugo-Slavia), Belgrade, Sofia, Bukarest, Budapest, Vienna, Prague, and Cologne.

extension of the Geraldton—Derby line from the present terminus to Wyndham and on 300 miles farther—to Port Darwin, the capital of the Northern Territory.

In New Zealand the Government pays a subsidy to three companies, but little flying has yet been done.

Canada has not passed beyond the experimental stage, except where she is beginning to save time on journeys to remote construction and logging camps. In one instance an aeroplane was able to do in two and a half days what a dogtrain in winter and a canoe in summer could only have accomplished in eleven days. As Canada is a country of long distances and many physical barriers—forest, water, mountains—her air routes are bound to develop.

(b) Military Aviation.

The only British military service is from Cairo to Baghdad, which has been in operation since July 28, 1921. For the most part this line crosses some 500 miles of trackless desert, where the only guide to pilots is a trail blazed across the sand by a convoy of motor-cars and renewed each year.

The line followed is :—

	Miles.	
Cairo (Heliopolis)[1]		
Ramleh	240	303
Amman	63	
Kasr Asrak	50½	
El Jid	203½	530
Ramadi	213	
Baghdad	63	
Total		833

This service, however, does not bring mails any quicker into Baghdad than the Nairn motor service, as the latter mails leaving London on Thursday night reach Port Said on Wednesday, Maifa on Thursday, and Baghdad on Saturday night, taking nine days in transit as against twenty-four days by the ordinary route via Bombay.

This is the natural development of the Haifa—Beirut service which has been running for four years and enables the overland express mail from Egypt to be delivered in twenty-four hours.

[1] All aerodrome stations are in italics.

The road followed from Haifa to Baghdad goes along the main road to Damascus for the first 70 miles and then for 15 miles on the road towards Aleppo. From Damair, where the main road is left, to Ramadi (425 miles) the desert is traversed in as straight a line as a car can go. Thence from Ramadie to Baghdad (93 miles), a regular travel way is used. Only in the desert are the cars used out of immediate touch with supplies.

Possibly, in the future, this motor line may be extended and mails carried on from Baghdad to Teheran in another four days.

Future Lines.

The most valuable data as to the practicability and development of air routes within the Commonwealth are combined in "The Report of the Advisory Committee on Civil Aviation on Imperial Air Routes, 1919"—a pamphlet issued in 1922 by the Civil Aviation Advisory Board of the Air Ministry entitled "First Report on Imperial Air Mail Services" and in a lecture delivered by Sir Frederick Sykes before the Royal Geographical Society in February, 1920.

The report of the Aviation Advisory Board goes elaborately into the question of cost and upkeep. On the other hand it confines itself to the services to the Middle East and India, whereas Sir Frederick Sykes deals not only with these routes and distances, but also outlines the possible development of air routes to Australasia, and from Cairo to the Cape. The Advisory Board, on the other hand, in accordance with the decision of the Committee of Imperial Defence not to develop an airship service, announced in Parliament by the Prime Minister (Mr. Bonar Law) on July 17, 1922, definitely abstains from mentioning airships and recognizes that in view of the machines, pilots, and personnel generally employed, "an Imperial Air Mail Service will form an additional reserve from which assistance can be drawn, in case of war, while the production of passenger and goods aircraft, in addition to service aircraft, will keep the factories and designing staffs further employed and capable of more rapid expansion in case of need."

For the main routes to India the Report suggests three alternatives to Baghdad based on :—

(1) Cairo.
(2) Alexandretta ; and
(3) Constantinople.

These routes are compared as to time taken with the regular mail service by rail and steamer from London to Baghdad via Karachi. It is pointed out that at present the carriage of mails from London to Baghdad via Cairo is reduced from 27–30 days to 8 days under the best conditions, a reduction which also applies to the route via Haifa, not mentioned in the Report.

Route 1—as already in operation—has been dealt with.

Route 2 assumes the establishment of a French service from Paris via Italy and Greece, which would then link up with Route 3 at Adana or Quitab.

Route 3 is the quickest route but presents considerable physical difficulties.

The route suggested is as follows :—

From.	*To.*	*Distance. Miles.*	
Constantinople	Eskisher	125	295
Eskisher	*Konia*	170	
Konia	Adana	170	
Adana	Aintab	120	375
Aintab	*Urfa*	85	
Urfa	Mardin	105	255
Mardin	*Mosul*	150	
Mosul	Tekrit	125	
Tekrit	Samara	30	220
Samara	Baghdad	65	
	Total		1145

On the second stage to Karachi, the northern, or Persian, side of the Persian Gulf is followed, though, from a strategic standpoint, this is not very satisfactory.

The suggested route is as follows :—

From.	*To.*	*Distance. Miles.*
Baghdad	Basra	290
Basra	Bushire	230
Bushire	Bunder Abbas	400
Bunder Abbas	Charbar	230
Charbar	*Karachi*	400
	Total	1550

The third link from Karachi to Bombay is 550 miles, thus :—

From.	*To.*	*Distance. Miles.*
Karachi	Rajkote	290
Rajkote	Bombay	260
	Total	550

We have now to connect London with Constantinople, and London with Egypt.

(1) London to Constantinople.

From.	*To.*	*Distance. Miles.*
London (Croydon) ...	Brussels	200
Brussels	Frankfort	200
Frankfort	Nuremberg	110
Nuremberg	Vienna	270
Vienna	Budapest	150
Budapest	Bukarest	390
Bukarest	Constantinople	280
	Total	1600

making a total distance, via Constantinople, from London to Bombay of 4,845 miles.

This is made up as follows :—

From.	*To.*	*Distance. Miles.*
London	Constantinople	1600
Constantinople	Baghdad	1145
Baghdad	Karachi	1550
Karachi	Bombay	550
	Total	4845

This would entail the use of French aeroplanes from Paris to Constantinople.

(2) London to Alexandria, via Brindisi.

This assumes the picking up of the Cairo—Baghdad service *en route*.

The line followed would be :—

From.	*To.*	*Distance. Miles.*
London (Croydon) ...	Paris (Le Bourget) ...	200
Paris	Lyons (Le Bron)	245
Lyons	Marseilles (Marignane) ...	170
Marseilles	St. Raphael	70
St. Raphael	Pisa (St. Givots)	185
Pisa	Naples (Capodichino) ...	285
Naples	Brindisi (San Vito dei Normanni)	200
Brindisi	Patras Harbour (Greece) ...	270
Patras	Suda Bay (Crete)	200
Suda Bay	Alexandria	480
	Total	2305

On the farther stages of the journey, allowing for a deduction of 200 miles, as the journey is commenced not at Cairo, but at Alexandria, the distance covered would be :—

From.	*To.*	*Distance. Miles.*
London	Alexandria	2305
Alexandria	Baghdad	633
Baghdad	Karachi	1650
Karachi	Bombay	550
	Total	5138

or 190 miles longer than via Constantinople.

(3) The third route suggested is from Southampton via Cherbourg and Bordeaux across the south-west of France and then via Malta, Sardinia and Crete. This route, however, would lengthen the first stage of the journey by another 300 miles.

The saving on both routes over the present service to India would be :—

Days.	*From.*	*To.*
20 to 23	London	Baghdad.
$7\frac{1}{2}$	London	Karachi.
$4\frac{1}{2}$	London	Bombay.

Further, if there was an air service from London to Constantinople, there would be an additional saving of two and a half days.

The three main long Commonwealth routes that have been attempted and in two cases flown are :—

(1) Cape to Cairo.
(2) London to Australia.
(3) The Trans-Atlantic Route.

The Cape to Cairo route was attacked in March, 1920, the greatest success being secured by Dr. Chalmers Mitchell, under the auspices of *The Times*, and by Colonel Van Ryneveld and Major Sir C. J. Brand of the South African Air Service.

Prior to the attempt, a whole year was spent in a careful investigation of the possible line of flight. Great difficulties were encountered in the investigation which was divided into three zones.

(a) Northern Zone.—From Cairo the Nile was followed to Wadi Halfa, from Wadi Halfa the railway as far as Abu Hamed and then the Nile again to Khartoum. From Khartoum

a line was taken west of the White Nile to Eleri (391 miles) and thence due south through Uganda to Nimule, a small port on the White Nile, 100 miles W.N.W. of Lake Victoria Nyanza.

(b) **Neutral Zone.**—The line chosen was from Nimule to Abercorn in Southern Rhodesia, near the southern end of Lake Tanganyika. Owing to the disturbed atmosphere above Lake Tanganyika it was suggested that aeroplanes should skirt its left bank (in Tanganyika Territory) to its southern end, and then cross Northern Rhodesia in the direction of Livingstone, proceeding thence south eastward to Buluwayo and so by Pretoria, Johannesburg, Beaufort West to Cape Town.

(c) **Southern Zone.**—Abercorn to Cape Town.

(*a*) *Cairo to Nimule and Abercorn to Cape Town.*—The flight over the northern and southern zones was expected to be fairly easy. Where the ground was not prepared, landing on the desert would not be too difficult and the line would follow the river, the telegraph posts or a railway, for most of its distance.

(*b*) *Nimule to Abercorn.*—This zone was found to be by far the most difficult of the three. For many miles it is covered by dense bush and real tropical forest. In some parts there is no land transport, and the difficulty of transporting stores, fuel, etc., is enhanced by the absence of cattle owing to the ravages of the tsetse fly. Consequently, reliance has to be placed entirely on native carriers.

Moreover, the mosquito and the white ant flourish, and there is little water. It is in this neutral zone that Africa shows its oft expressed peevishness with regard to civilization. We may now work out the suggested distances, with the time actually taken when they were being mapped out, and the line followed.

	From.	*To.*	*Distance.*	*Days.*	*Hrs.*	*Line followed.*
Northern Zone	Cairo ...	... Shellal ...	535		23	Railway.
	Shellal	... Wadi Halfa ...	228		42	Steamer.
	Wadi Halfa	... Khartoum ...	579		24	Railway.
			1342			
	Khartoum	... Rejaf ...	1096	14		Steamer &
	Rejaf	... Nimule ...	150	5 to 8		Ground transport.

	From.	*To.*	*Distance.*	*Days.*	*Hrs.*	*Line followed.*
Neutral Zone.	Nimule	... Batiaba ...	165	2		Steamer.
			1411	24 (maximum). 21 (minimum).		
	Batiaba	... Entebbe ...	350	5 to 8		Ground transport.
	Entebbe	... Ruanza ...		1 to 2		Steamer.
			350	10 (maximum). 6 (minimum).		
	Ruanza	... Tabora ...	260	10		Ground transport.
	Tabora	... Kigoma (Ujiji)	200	2		Steamer.
	Kigoma	... Abercorn ...	350	3		Steamer.
			810	15		

(The steamer service on Lake Tanganyika is uncertain and Abercorn is 14 miles from the lake.)

From.	*To.*	*Distance.*	*Days.*	*Line followed.*
Abercorn	... Broken Hill ...	475	10 to 13	Ground transport.

(The time taken in this journey is bound to depend on the state of the track.)

From.	*To.*	*Distance.*	*Days.*		*Line followed.*
Broken Hill	... Buluwayo ...	473	1	12	Railway.
Buluwayo	... Cape Town ...	1362	3		Railway.
		1835	4	12	

		Miles.	*Maximum. Days.*	*Hrs.*	*Minimum. Days.*	*Hrs.*
Stage (1)	Cairo to Khartoum	1342	3	17	3	17
„ (2)	Khartoum to Batiaba... ...	1411	24		21	
„ (3)	Batiaba to Ruanza	350	10		6	
„ (4)	Ruanza to Abercorn	810	15		15	
„ (5)	Abercorn to Broken Hill ...	475	13		10	
„ (6)	Broken Hill to Cape Town ...	1835	4	12	4	12
	Total	6223	70	5	60	5

As a matter of fact, both Dr. Chalmers Mitchell and Colonel Van Ryneveld shortened this distance considerably over that portion of the route which they actually flew, by more direct flying, though they lost distance in the region of Lake Victoria Nyanza by deviating to the east, and Colonel Van Ryneveld went out of his course between Broken Hill and Buluwayo. Dr. Chalmers Mitchell broke down with his

Times machine near Tabora, and Colonel Van Ryneveld after exchanging his "Silver Queen I" for "Silver Queen II," north of Sherawak, at Buluwayo, on March 8, 1920, though he later completed his flight to Cape Town. His route was :—

	Miles.	*Suggested Line.*	*Gain in Distance over Mapped Route.*
Cairo to Khartoum	1043	1342	299
Khartoum to Eleri	391	1096	350
Eleri to Mongalla	355		
Mongalla to Jinja (Entebbe) ...	343	665	—2
Jinja to Kisumu	113		
Kisumu to Ruanza	211		
Ruanza to Tabora	172	260	88
Tabora to Abercorn	330	550	220
Abercorn to Broken Hill	394	475	81
Broken Hill to Buluwayo	528	473	—55
Total	3880	4861	981

Dr. Chalmers Mitchell's was the finer feat as he flew from England to Cairo, whereas Colonel Van Ryneveld started from Cairo.

(3) The Trans-Atlantic Flight.

This has been twice accomplished by aeroplane. The first flight was made by Lieutenant-Commander Read, United States Navy, in an American seaplane, N.C.4.

Lieutenant-Commander Read left Trepassy Bay (Newfoundland) on May 16, 1919, and arrived at Plymouth on May 31. The line he took was as follows :—

	Miles.
Trepassy Bay to The Azores	1381
The Azores to Lisbon	1094
Lisbon to Plymouth	895
Total	3370

The direct flight was accomplished by Captain Alcock and Lieutenant Brown of the Royal Air Force on June 14–15, 1919.

They left St. Johns (Newfoundland) at 4.28 p.m. (Greenwich mean time) on Saturday, June 14, and arrived at Clifden (Ireland) at 8.40 a.m. on Sunday, June 15. The distance is 1,880 miles.

(4) London to Australia.

The route to Australia as followed by Sir Ross Smith and his brother Sir Keith Smith, with some slight deviation,

in their successful flight between November 12 and December 10, 1919, and, following them, by Lieutenants Parer and Macintosh, was worked out in advance on the offer of a prize of £10,000 by the Australian Government to the first airman who should successfully accomplish the flight within 30 days. The route was divided into four stages, to which a fifth was later added, in order to bring the successful competitor to Melbourne.

These stages were :—

	Miles.
(1) London to Egypt (Aboukir)	2827
(2) Egypt (Aboukir) to India (Karachi)	2574
(3) Across India (Karachi to Calcutta)	1494
(4) India (Calcutta) to Australia (Port Darwin)	4399
Total	11294
Additional stage—across Australia (Port Darwin to Melbourne) ...	2398
Total	13692

The distances between landing points, most of which were on permanent or emergency aerodromes were :—

	Intermediate Distance. Miles.	*Total Distance from London. Miles.*
Stage (1).		
London (Hounslow) to Lympne		
Lympne to Marquise	240	240
Marquise to Paris (Le Bourget)		
Paris to Beaune	175	415
Beaune to Lyons	188	603
Lyons to Miramas	152	755
Miramas to San Rafael (or Fréjus) ...	89	844
San Rafael or Fréjus to Pisa (San Juliano)	206	1050
Pisa to Rome (Barraca)	175	1225
Rome to Naples (Capodichino)	115	1340
Naples to Foggia (South)	84	1424
Foggia to Brindisi (or Taranto)	138	1562
Brindisi (or Taranto) to Sicily	62	1624
Sicily to Malta	118	1742
Malta to Ben Ghazi	415	2157
Ben Ghazi to Sollum	318	2475
Sollum to Sidi Barani	50	2525
Sidi Barani to Mersa Matruh	70	2595
Mersa Matruh to El Dabea	80	2675
El Dabea to El Hamman	54	2729
El Hamman to El Amariah	26	2755
El Amariah to Aboukir	72	2827
	2827	

	Intermediate Distance. Miles.	*Total Distance from London. Miles.*
Stage (2).		
Aboukir to Kantara	96	2923
Kantara to Damascus	336	3259
Damascus to Abu Kemal	268	3527
Abu Kemal to Hit		
Hit to Ramadi	215	3742
Ramadi to Baghdad		
Baghdad to Basra	305	4047
Basra to Bushire	206	4253
Bushire to Bunder Abbas	407	4660
Bunder Abbas to Charbar	273	4933
Charbar to Karachi	468	5401
	2574	
Stage (3).		
Karachi to Nasirabad	476	5877
Nasirabad to Delhi	208	6085
Delhi to Cawnpore	232	6317
Cawnpore to Fateh Pur	50	6367
Fateh Pur to Allahabad	68	6435
Allahabad to Calcutta (Fort William) ...	452	6887
	1486	
Stage (4).		
Calcutta to Rangoon	793	7680
Rangoon to Singapore	1323	9003
Singapore to Bandoeng	538	9541
Bandoeng to Port Darwin	1745	11286
	4399	
Additional Stage.		
Port Darwin to Katherine	170	
Melbourne to Newcastle Waters	235	405
Newcastle Waters to Anthony Lagoon ...	125	530
Anthony Lagoon to Avon Downs	200	730
Avon Downs to Cloncurry	185	915
Cloncurry to Longreach	315	1230
Longreach to Charleville	242	1472
Charleville to Bourke	254	1726
Bourke to Narromine	208	1934
Narromine to Cootamundra	175	2109
Cootamundra to Melbourne	285	2394
	2394	

Total miles London to Melbourne 13,680.

Of these stages, Stage (1) had already been flown earlier in 1919 by Brigadier-General MacEwan and Major Maclaren, and Stage (2) by General Salmond in 1918.

The most difficult stages seemed to be the latter part of Stage (3) and Stage (4). In the last half of Stage (2)—between Baghdad and Karachi—the landing grounds, generally,

were likely to be good, landing on the desert often being practicable in case of emergency. On the other hand, there was always the possibility of :—

(*a*) Unfriendly natives.

(*b*) Shortage of water.

(*c*) Absence of means of communication.

It will be seen in Stage (4) that the most severe test comes just before reaching Australia, as after a flight of nearly 7,000 miles, the aviator has to tackle distances twice, and three times, and in one case nearly four times as long as any yet attempted, and almost as long as that attained in the Atlantic flight, the longest flight yet achieved. Moreover, of the 1,700 miles from Bandoeng to Port Darwin 500 miles were over the sea, with no aerodromes *en route*. Consequently, it was suggested that after Calcutta the aeroplane might be turned into a seaplane by the substitution of floats for wheels, so as to use the many available harbours and inlets along the route, the actual distance covered being the same as if an aeroplane had been used for the whole journey.

The alternative seaplane route suggested for Stage (4) was :—

	Intermediate Distance. Miles.	*Total Distance from London. Miles.*
Calcutta to Akyab (Burma)	447	7334
Akyab to Rangoon	346	7680
Rangoon to Mergoï	358	8038
Mergoï to *Penang	530	8568
*Penang to *Singapore	437	9005
*Singapore to Banka	229	9234
Banka to *Batavia	307	9541
*Batavia to Surabaya	438	9979
Surabaya to Bima	432	10411
Bima to Koepang Bay	357	10768
Koepang Bay to Port Darwin	518	11288

As a matter of fact, before the machines attempting the task left London, the Dutch Government had already erected temporary aerodromes along the road, so that there was no need to make the change. As well as this, there were aerodromes, permanent or emergency, equipped with fuel and oil, at all places marked with an asterisk on the foregoing table.

At Calcutta, Rangoon, and Singapore the racecourses could be used as landing places. Between Akyab and Mergoï there was no landing place, nor was there any aerodrome on the route.

The actual route differed in many respects from the suggested route, as may be seen by the following time-table :—

STAGE (1). LONDON TO CAIRO.

From.	*To.*	*Route followed.*	*Hours of Flight.*		*Distance Flown.*	*Gain or Loss in Miles over Suggested Line of Flight.*
			Hrs.	*Mins.*	*Miles.*	
London (Hounslow)	Lyons ...	Lympne ... Roanne	5	40	603	—
Lyons ...	Pisa ...	Riviera across Gulf of Genoa, San Remo, Spezia	4	34	447	—
Pisa ...	Rome ...	—	—	—	175	—
Rome ...	Taranto ...	Capua, Naples, Mt. Vesuvius	2	45	277	+60
Taranto ...	Suda Bay (Crete)	S. Greece ...	4	0	1343	—
Suda Bay	Cairo ...	Sollum ... Mersa Matruh	7	30		—78
		Total		...	2845	—18

STAGE (2). CAIRO TO KARACHI.

Cairo ...	Damascus	Kantara, Romani, Gaza, Haifa, Sea of Galilee	4	30		
Damascus	Ramadie ...	Abu Kemal, Tadmor, along R. Euphrates	7	0	1202	+18
Ramadie ...	Basra ...	Baghdad, Kut-el-Amara	5	25		
Basra ...	Bunder Abbas	Bushire ...	7	50	613	—
Bunder Abbas	Karachi ...	Along coast	8	40	741	—
		Total		...	2556	+18

STAGE (3). KARACHI TO CALCUTTA.

Karachi ...	Delhi ...	—	8	30	692	—8
Delhi ...	Allahabad	Muttra, Agra, Cawnpore	6	30	450	—100
Allahabad	Calcutta ...	—	5	15	452	—
		Total		...	1594	—108

In Stage (4) Sir Ross Smith proceeded via Akyab to Rangoon, 793 miles, and thence to Bangkok, 427 miles.

From.	*To.*	*Distance Flown. Miles.*	*Gain or Loss in Miles over suggested Line of Flight.*
Bangkok	Singapore	817	+ 79
Singapore	Banka	237	
Banka	Batavia	269	
Batavia	Kalidjeh	65	
Kalidjeh	Samurang	191	
Samurang	Surabaya	161	
Surabaya	Bali	} 438	+ 235
Bali	Lombok		
Lombok	Bima		
Bima	Beo	122	
Beo	Larantuka (Timor)	173	
Larantuka (Timor)	Atambosa (Flores)	130	
Atambosa (Flores)	Port Darwin	262	

It will be noticed that on this stage Sir Ross Smith shortened the distance between Calcutta and Port Darwin over the suggested route by 314 miles, making a total gain on his journey of 206 miles, thus :—

		Loss.	*Gain.*
Stage (1).	London to Cairo	18	—
Stage (2).	Cairo to Karachi	—	18
Stage (3).	Karachi to Calcutta	108	—
Stage (4).	Calcutta to Port Darwin	—	314
		126	332

Net gain, 206.

Airships.

While aeroplanes, seaplanes, and flying-boats may carry mails and valuable goods in small bulk over a series of comparatively short distances lengthening out into a great stretch, a continuous non-stop journey for heavy goods and a number of passengers can only be made conveniently by airship. It has been stated that an airship of 150 tons displacement has—without cargo—a range of 11,500 miles at 60 miles per hour, and of 24,000 miles at 40 miles per hour.

If 200 passengers and 11 tons of mail and freight are carried, it can make a non-stop run of 2,500 miles.

Further, such a vessel is six times as cheap as a light cruiser to build, and seventy times as cheap to operate. In actual running time it is also much faster, as may be seen by the following table :—

THE
WORLD'S AIR ROUTES
Across the Atlantic, direct
Britain to Australia
Across Africa
Rome to Tokyo (JAPAN)
Round the World Route
Military Geography
By Courtesy of Shell-Mex Ltd
NORTH AMERICA
SOUTH AMERICA
EUROPE
ASIA
AFRICA
AUSTRALIA
ATLANTIC OCEAN
PACIFIC OCEAN
INDIAN OCEAN
Equator
Vancouver
Montreal
Chicago
New York
San Francisco
New Orleans
Acapulco
Panama
Georgetown
Callao
Pernambuco
Rio Janeiro
Valparaiso
Buenos Aires
Clifden
NEWFOUNDLAND
St Johns
London
Paris
Lyons
Turin
Rome
Brindisi
Petrograd
Adalia
Bagdad
Basra
Soltum
Cairo
Wadi Halfi
Khartoum
Freetown
Lagos
Jinja
Mwanza
Abercorn
Livingstone
Bulawayo
Broken Hill
MADAGASCAR
Durban
Cape Town
Port Elizabeth
Delhi
Allahabad
Calcutta
Bombay
Ceylon
Rangoon
Singapore
Kalidjate
Bima
Port Darwin
Cloncurry
Charleville
Perth
Adelaide
Sydney
Melbourne
Vladivostok
Peking
Tokyo
Osaka
Foochow
Canton

Distance.	*Estimated Steaming Time. Days.*	*Estimated Airship Time. Days.*
London to Port Said	6	2½
London to Bombay	15	5
London to Singapore	24	8
London to Australia (Perth)	28	12

At present Great Britain possesses five airships, the R33, the R80, the R36, the L71, and the R37 (abandoned, but within 90 per cent. of completion). Up to the spring of 1924, it was proposed that by the end of 1926, on the advice of the Imperial Shipping Committee and the Committee of Imperial Defence, airships should be operating on a bi-weekly service to India, under what is known as the Burney scheme, from the name of its author, Commander Burney.

To effect this, a promise was made of a single subsidy of £400,000, payable in the first year, in order that the company responsible for finding the rest of the capital might produce an airship of 5,000,000 cubic feet, capable of accomplishing the journey to India every week in 100 running hours. This vessel was to have a non-stop capacity of 3,000 miles or 20 days at slow speed, *e.g.*, 80 miles an hour, and was to carry 200 passengers. The company proposed to send an airship to India on its first flight in 1926. If this was successful, it would maintain a weekly service to Egypt until two more airships were built, when a weekly service would be instituted, to be followed by a bi-weekly service when six ships were in commission. The original plan of building airships has now been changed. The Government now proposes to recondition one airship for purposes of research, and to build another by contract, giving the Burney company priority. It will then operate both vessels. The value of airships can be demonstrated on political, strategical, and economic grounds. Their chief use—as in all rapid communication—is in bringing the scattered peoples of the Commonwealth into a closer touch with one another—but, if the experimental Indian scheme answers expectations—it will be the forerunner of similar services all over the Commonwealth, which in time of war may well be diverted to the carriage and concentration of men and material. The practical value of the airship was shown in 1919, when the R34 made its double crossing of the Atlantic.

Airship services are now in course of development between Spain (Seville) and the Argentine (Buenos Aires), with subsidiary routes to Italy, the Canary Islands, Cuba, and along the Pacific seaboard of South America, while the United States has her own completed ship—the *Shenandoah*—and a German Zeppelin. The proposed England–Scandinavia service, and the construction of rigid 20-ton vessels for the London–Paris line have perforce, for the present, fallen by the way.

On the other hand, there may well soon be a revolution in airship communications. The French naval airship *Dixmude*, formerly the German L72, covered a distance equal to that from England to India in 118 hours flying before she came to her untimely end.

On the trans-Arctic route, if the American views as to the ZR1 come to anything, there may well be within a decade a regular service between Great Britain and Japan, going north from London and then south to Tokio, with supply bases in Greenland (the junction with the line from the United States), Spitzbergen, and Alaska (Nome), the approximate distances being :—

London to Scotland	600 miles	5750 miles.
Scotland to Spitzbergen	1000 miles	
Spitzbergen to North Pole	650 miles	
North Pole to Nome	1500 miles	
Nome to Japan	2000 miles	

Moreover, the ZR3, an ex-Zeppelin, which can make a non-stop run of 7,500 miles, has been taken from its Friedrichshafen shed to New Jersey by way of France, Spain, and the south Atlantic—a distance of 4,500 miles—and will soon be on the London—New York service.

Foreign Air Routes.

North America.

In the United States there is a long-distance trans-continental line from New York to San Francisco, with two spurs—in the east from New York to Newport (160 miles), in the west from San Francisco to Los Angeles (350 miles), and with points of call at Detroit, Chicago, Omaha, and Salt Lake City. The total length from New York to San Francisco is 2,770 miles. The relayed distances are as follows :—

New York to Detroit	525 miles.
Detroit to Chicago	190 miles.
Chicago to Omaha	475 miles.
Omaha to Salt Lake City	850 miles.
Salt Lake City to San Francisco	730 miles.
Total	2770 miles.

There are also certain short air routes in the West Indies and Mexico.

Nassau to Key West	275 miles.
Key West to Havana	110 miles.
Monterey to Tampico	325 miles.
Tampico to Tuxpan	100 miles.
Tuxpan to Mexico	175 miles.

Asia.

The military routes in the Middle East are, apart from the British routes already mentioned, French lines :—

Baghdad to Damascus	480 miles.
Damascus to Palmyra	120 miles.

There are, in addition, lines from :—

Homs to Latakia	40 miles ;
and from	
Alexandretta to Aleppo	120 miles.

Europe.

The general tendency of European countries is to concentrate on long international routes, as in the extension of the German air line from Berlin to Moscow, a distance of 1,100 miles, and the French plans for the maintenance of a regular service from Paris to Constantinople by way of Prague, Vienna, Budapest, and Bucharest, a total length of over 1,600 miles. Moreover, the French, who have had most satisfactory results from their Toulouse—Casablanca service, are now proposing to develop North Africa by a line from Marseilles to Algiers, a seaplane service from Antibes to Tunis through Corsica and Sardinia, and the extension of the Casablanca route down the coast to Dakar in Senegal, with two spurs, one from Cape Juby to the Canary Islands, and a second from Dakar itself to Kayes in the interior. When all these systems are in working order, Algiers will be within twenty hours of Paris, and Paris only five days from Dakar.

There are also several extensions of the Marseilles—Perpignan—Barcelona services in North Africa.

Germany has now eight lines in operation, and looks hopefully to her future air connection with Russia and Scandinavia. At present there is only one Scandinavian line from Copenhagen to Hamburg. Poland has two services, one along the " corridor " to Danzig, her outlet on the Vistula, the other to Lemberg in Galicia. There is also a line from Danzig northward, eventually reaching Helsingfors (Finland), through Königsberg (German East Prussia), Memel (Lithuania), Riga (Latvia), and Reval (Esthonia), an effective link to the new Baltic states.

Belgium and Holland both subsidize lines, the former from Lympne to Brussels, the latter from London and Paris. Spain has one line only in operation—from Seville to Larache—worked by British machines and pilots, but is planning five all-Spanish lines to pass through Seville (Tablada). (1), San Sebastian—Seville—Cadiz—Canary Islands. (2), Bilbao—Barcelona. (3), Seville—Granada. (4), Seville—Valencia. (5), Seville—Zalamea la Real—El Rosal. Italy has none at present, but hopes to organize one from Brindisi to Egypt.

When we come to Asia, we find—apart from the Middle East—that Siam has a short military line used for civilian purposes from Korat to Ubon.

The long cross-continent United States line, mentioned above, is purely a Government mail line, and most of the other services are luxury services for passengers.

South and Central America have at present only several small services, including a subsidized French route in French Guiana, and a 700-mile line, under German auspices, in Colombia. Practically every South American republic, however, has a bigger scheme on hand. Thus the Argentine has started a service between Buenos Aires and Monte Video, while Brazil has a plan for joining up Rio de Janeiro and Porto Alegre.

This completes the world survey for 1923. For 1924 many plans are in course of preparation. About April 1 four American machines will leave Seattle and proceed westward

by the coast of Canada and Alaska, the Aleutian Islands, Japan, along the coast of China, French Indo-China, Siam and Burma, across India, up the Persian Gulf, across Turkey and Europe to England, and thence north by way of the Farse Islands, Iceland and Greenland to Cape Farewell, Labrador, up the St. Lawrence, Quebec, Montreal, and to Washington.

The route has been sub-divided as follows :—

(*a*) Washington to Attu Island.
(*b*) Attu to Nagasaki.
(*c*) Nagasaki to Constantinople.
(*d*) Constantinople to Hull.
(*e*) Hull to Washington.

At about the same time a British " amphibian " will fly in the opposite direction, keeping fairly close to the route planned for the late Sir Ross Smith by way of Egypt, Mesopotamia, Persia, India, Burma, China, Japan, the Aleutian Islands, Canada, and after a divergence to New York, to St. John's, Newfoundland, and thence by way of Greenland and Iceland to London.

In all this three things have always to be kept in mind :—

(1) There is hardly a nation in the world which has not some kind of air force, or does not intend in the near future to busy itself with commercial aviation.

(2) The present simple services are bound, sooner or later, to be supplemented by more ambitious systems. Three suggest themselves at once—an air route from Holland to the Dutch East Indies by way of Constantinople, Karachi, Allahabad, Calcutta, Rangoon, and Bangkok, and two French lines, one from Dakar (Senegal) across the Atlantic to South America, the other an alternative way along the shores of the Mediterranean to Constantinople.

(3) All the strenuous efforts being made to foster civil aviation—and this applies especially to France and Germany and in a lesser degree to Great Britain—must eventually create a large potential reserve in material and men for war purposes.

Note on World Flights by Air.

Since the beginning of 1924 the British and American world flights have commenced.

At the present date (June 1, 1924) Squadron-Leader Maclaren has reached Akyab, and three American aeroplanes from San Francisco have arrived at Tokyo.

Lieutenant Pelletier D'Oisy, of the French Air Service, has also flown from Paris to Peking, and a Portuguese aeroplane on its way from Lisbon to Macao, via Tunis, Tripoli, and Baghdad, has reached India.

The British world flight is along the following route :—

	Miles.
STAGE (1). CALSHOT TO KARACHI. ... ... *Calshot*—Lyons—Rome—Brindisi—Athens—Cairo—Amman—Baghdad—Bushire—Bunder Abbas—Charbar—*Karachi.*	4870
STAGE (2). KARACHI TO TOKYO ... ... *Karachi*—Nasirabad—Allahabad—Calcutta—Akyab—Rangoon—Bangkok—Vinh—Haiphong—Hong-Kong—Foochow—Shanghai—Kagoshima—Kuchimoto—*Tokyo.*	5879
STAGE (3). TOKYO TO VANCOUVER ... ... *Tokyo*—Minitagaura—Yitorupl (Kurile Is.)—Paramachir Is.—Petrapavlovski (Kamschatka)—Nikolaki—Chicago Harbour—Kazan Bay—Dutch Harbour (Aleutian Is.)—Chignik—Cordova—Yakutat—Wrangel—Bella Bella—*Vancouver.*	5917
STAGE (4). VANCOUVER TO OTTAWA ... ... *Vancouver*—High River—Regina—Winnipeg—Port Arthur—Sault St. Marie—*Ottawa.*	2127
STAGE (5). OTTAWA—HOME ... ... *Ottawa*—Montreal—Quebec—St. John (N.B.)—Sydney—St. Johns (N.F.)—Halfa—Punta Delgada—Lisbon—Madrid—Bordeaux—Paris—*Home.*	4939
Total	23,752

Appendix XI. CLIMATE AND PRODUCTION.

Country.	*Zone.*	*Temp.*	*Annual Rainfall.*	*Vegetation—Detail.*	*Minerals.*	*Industries.*	*Exceptional Climate.*
1/3rd Canada	Frigid	0·16°	0·10″	Tundra, Alpine flora, nil	Gold (Yukon)	Fur	Barren lands.
2/3rd Canada	N. Temperate	16·48	10·40	Coniferous—wheat, oats, barley, flax, fruit.	Coal, silver, nickel, petrol	Agriculture, mining, fishing	British Columbia, Ontario, Peninsula.
British Isles	N. Temperate	48	20·40	Broadleaf, meadow, oats, barley	Coal, iron	Manufactures, agriculture, mining, fishing	—
Palestine, Iraq	N. Temperate	64·80	0·20	Meadow, semi-desert—cereals	Nil	Agriculture	Euphrates and Tigris.
West Indies	Tropical	80	60·80	Sugar, fruit, coffee, rum	Nil	Agriculture	—
Egypt and Sudan	Tropical	64·80	0·10	Desert—oil seeds, cotton, sugar, dates	Nil	Agriculture	Nile Valley.
Half India	S. Temperate	75·80	80+	Tropical grassland—wheat, millet, cotton, opium, sugar	Gold, coal	Agriculture, mining	—
West Africa	Tropical	80+	60·80	Tropical forest—palm oil, rubber, nuts	Nil	Agriculture	—
East Africa (Kenya)	Equatorial	80	20·40	Tropical grassland—dates, oil, palms, rubber	Nil	Agriculture	—
Half India	Torrid	80	20·60	Tropical grassland — wheat, rice, tea, cotton, jute, oil seeds, opium, teak	Gold, coal, graphite	Agriculture, mining	—
Burma	Torrid	75·80	80+	Tropical forest—rice, tea, teak	Jade, rubies	Agriculture	—
British Guiana	Equatorial	80	80	Equatorial forest—spices, rice, sugar, rubber, hemp, tobacco, coffee, timber, sago	Gold	Agriculture	—
Fed. Mal. States					Tin	Agriculture	—
Borneo					Nil	Agriculture	—
New Guinea					Gold	Agriculture	—
1/3rd Australia (N.)	Tropical	80	60·80	Tropical grassland, desert	Nil	—	—
South Africa	S. Temperate	64·80	0·10 10·40	Desert (Kalahari), tropical grassland—wool, ostriches, sugar, maize, fruit	Gold, coal, diamonds, copper	Sheep-rearing, agriculture, mining	—
2/3rd Australia	S. Temperate	64·80	0·10 10·20	Semi-desert—Gibson's Desert Broadleaf forest and meadows wheat, timber, fruit, wool	Gold, silver, copper, tin, lead, pearls, coal, zinc	— Sheep, mining	Gibson's Victoria Desert.
New Zealand	S. Temperate	48·64	40·60	Broadleaf forest and meadows, kauri pine, gums, oats, wheat, wool	Gold, silver	Agriculture, mining	—

Appendix XII.

MAPS OF THE COMMONWEALTH.

Owing to the wide distribution of the various parts of the Commonwealth, the most accurate way of showing their actual and relative shape, size, and position is on a *globe*. Owing to the impossibility of entirely flattening out a spherical surface, all other attempts at showing the different possessions of the Commonwealth on a flat map are subject to error, and everyone who wishes thoroughly to appreciate the geography of the Commonwealth should study it on an 8-inch globe.

The two most common forms of flat maps, though other projections are used for making maps of countries or portions of countries to insure the greatest possible accuracy in shape or size, are :—

(1) Mercator projection maps.
(2) Mollweide equal area maps.

Maps of both kinds generally end on both sides along the meridian of 180° (opposite to that which passes through Greenwich and in the middle of the Pacific Ocean).

(1) The Mercator Projection.

This is the most common form of map projection in use. It is produced by projecting the globe upon a cylinder tangential to the sphere at the Equator. The practical effect of this is to make all meridians of longitude parallel instead of converging towards the Poles as on a globe, and successive parallels of latitude become wider and wider apart as they reach the Equator. The obvious effect of this is to enlarge the area of all countries lying away from the Equator out of all proportion to their real size. In a Mercator projection map, Canada, which has an area of 3,771,000 square miles, appears to be almost as large as Africa, which has an area of 11,348,000 square miles, or is three times as large. This discrepancy becomes even more absurd as we approach either of the Poles. As the North and South Poles become lines as long as the Equator, you will not find the Polar Regions mapped at all on a map of this kind. Furthermore, straight lines on a globe are circles on this map. If you can draw a straight line from point to point on a globe, and carry that straight line over by some simple device such as a piece of string or elastic on to a Mercator Map, you will understand what is meant by a Great Circle, and you will visualize the difference for yourself.

For instance, the axis of the British Commonwealth on the globe is the straight line joining Wellington, New Zealand, and Halifax, Nova Scotia. That line passes just south of Hobart, Tasmania. From Hobart it curves round to the north-west to a point just south of Aden. It passes up the Red Sea across the north-east corner of Egypt and the Mediterranean, traverses approximately the frontier of France and Spain, and then curves round again in a south-easterly direction to its terminus.

It follows practically the line of the two great trade routes :—

(*a*) The Mediterranean—Suez Route.

(*b*) The North Atlantic Route.

The great value of the Mercator Projection map is that all *directions* marked on it from point to point are true. If, for instance, Dieppe is shown S.S.E. of Newhaven, the compass bearing between these two points will be absolutely accurate.

Consequently, the Mercator Projection map is essentially the sailor's map, and the map to use for the study of geographical direction—*i.e.*, winds and ocean currents.

(2) The Mollweide Equal Area Map Projection.

In this projection the central meridian is made just half the length of the Equator and at right angles to it, and successive parallels of latitude are made equidistant. Other meridians, however, are *curved* lines of varying length, the line of 180° being enormously exaggerated. But they are so drawn that any area in the frame is exactly in proportion to its corresponding area on the globe, so that the areas of all countries—not the length and breadth—are in correct proportion.

This, however, leads to considerable distortion of shape, especially near the edges, and a north and south line at one point is not necessarily parallel to a similar direction line drawn at another point.

Appendix XIII.

THE TIME OF THE COMMONWEALTH.

It is obvious that if the Commonwealth spreads to the " four corners of the earth " there must be midnight in one part when it is midday on the other side of the globe.

With the increased use of cable and wireless which carry messages across continents in a few minutes, it is absolutely essential to know the time of day at any part to which you are sending a message, when that message arrives.

In a wide country like Canada, where the sun reaches its zenith at Halifax at an hour when it has not long risen above the horizon at Victoria, neither of these cities, nor cities between the two, can keep the same time. If every place along the line of the Canadian Pacific Railway were to set its clock at its own noon, there would be infinite confusion, and travellers would spend all

day in altering their watches accordingly. Consequently, Canada is divided into a number of zones, called respectively the Atlantic, Prairie, Mountain, and Pacific zones, and every clock within a zone, if set accurately, shows the same time, in relation to what is known as Standard Time.

Standard time is fixed by the following considerations :— (*a*) As the earth goes round from west to east, the sun reaches its highest point for the day at the same time for all places situated on the same line of longitude—*e.g.*, when it is noon in London it is also noon at Havre, Valencia (Spain) and Accra (Gold Coast). This is why lines of longitude are called " meridians " (Latin, *meridies*) or " midday " lines. (*b*) Places on a meridian lying on the east of the meridian known as the meridian of Greenwich, from the great astronomical observatory, have their noon at an earlier hour, while places lying to the west do not get their noon until later on. The following table for certain parts of the Commonwealth will elucidate this more fully :—

TIME MOVING EASTWARD.

Hour.	*Place.*	*Date.*
12 noon	Greenwich	January 6.
1 p.m.	Nigeria	,,
2 p.m.	South Africa, Egypt	,,
2.30 p.m.	British East Africa	,,
4 p.m.	Mauritius, Seychelles	,,
5.30 p.m.	India	,,
6.30 p.m.	Burma	,,
7 p.m.	Straits Settlements	,,
8 p.m.	British North Borneo, Hong-Kong, Western Australia, China	,,
9 p.m.	Japan	,,
9.30 p.m.	South Australia	,,
10 p.m.	Australia (except Western and South Australia)	,,
11.30 p.m.	New Zealand	,,
12 a.m.	Fiji	,,
1.30 a.m.	Samoa	,,
4 a.m.	British Columbia (Pacific time)	,,
5 a.m.	Western Canada (Mountain time)	,,
6 a.m.	British Honduras, Canada (Central time)	,,
7 a.m.	Bahamas, Jamaica, Quebec, and Ontario (Eastern time)	,,
8 a.m.	West Indies (except Bahamas and Trinidad, Jamaica), Canada (Atlantic Time)	,,
10 a.m.	Trinidad	,,
11 a.m.	Sierra Leone	,,

(*c*) As the earth revolves completely through 360° of longitude in twenty-four hours, in one hour it revolves through 15°, or 1° every four minutes. Therefore a difference of 15° longitude on the map causes a corresponding time difference of one hour.

To take concrete examples :—

(1) Aden is in longitude 45° East of Greenwich ; therefore her time when it is 12 a.m. at Greenwich is exactly three hours later, or 3 p.m.

(2) Kingston, Jamaica, is in 76°58′ West of Greenwich; therefore her time when it is 12 a.m. at Greenwich will be 5 hours 8 minutes earlier, or 6.52 a.m.

The five time zones of Canada are based on 60°, 75°, 90°, 105°, and 120°, so that, as the table shows, when it is 12 a.m. at Greenwich it is—

60° divided by 15, or four hours earlier—8 a.m. in the Atlantic zone.
7 a.m. in the Eastern zone.
6 a.m. in the Central zone.
5 a.m. in the Mountain zone.
4 a.m. in the Pacific zone.

If, therefore, you send a cablegram from London to Vancouver (in the Pacific zone) at 12 a.m. on January 6, 1924, and it takes three hours to travel, allowing an hour for delivery, it will actually be delivered some four hours earlier by London time than the hour at which it was dispatched. Similarly for cablegrams eastward, you have to add on to the estimated time of the journey the number of hours corresponding to the difference in longitude. *E.g.*, if a cablegram is dispatched from London to Calcutta at 7 p.m. on January 6, 1924, and it takes five hours to travel, allowing an hour at the other end for delivery, and assuming that the Calcutta office is open day and night, it will not reach its final destination until 6.30 a.m. the next morning.

Time difference between London and Calcutta ...	plus 5 hrs. 30 min.
Time allowed for journey	5 hrs.
Time allowed for delivery	1 hr.
Total	11 hrs. 30 min.

The time differences on the table for the various states of Australia are also standard times, based on 150° East (10 hours), for Victoria (Melbourne), New South Wales (Sydney), Tasmania (Hobart), and Queensland (Brisbane), on 135° East (9 hours) for South Australia (Adelaide), and on 120° East (8 hours) for Western Australia (Perth).

The most curious phenomenon arises in Fiji. Fiji lies on a middle line 180° East and 180° West of Greenwich. Obviously, when it is midday at Greenwich it is midnight at Fiji. But when it is 12 a.m. on January 6, is it 12 p.m. on January 6 or 12 p.m. on January 7? This problem is solved by the creation of what is known as an International Date Line, which deviates a little from the meridian of 180°, so as to bring the Fiji Islands, the Samoa group, the Kermadec Islands, and the Friendly Islands all on one and the same side of the line.

But a ship crossing this Date Line in the Pacific between Wellington (New Zealand) and San Francisco passes from a point where a given day—say Sunday, January 6—is just finished (170° East of Greenwich) to a point (179° West of Greenwich) where Sunday, January 6, is just beginning. Consequently, the passengers on the ship get two Sundays and two January 6ths. following one another. This is what is known as " gaining a day " Of course, it is equally obvious that on the return journey, on crossing the line again, a " day is lost."

For the working of time problems, it is generally easier to work in continental time—*e.g.*, 17.50 hours for 5.50 p.m.—and transcribe into ordinary time.

CHAPTER VIII.

Communications by Cable and Wireless.

The actual cable mileage of the world is roughly 193,000 nautical miles.

Of these, British firms own 114,000 miles, and the British Government another 15,000. With one exception the Government cables are short lines between Great Britain and Europe, or small branches in the Dominions and in India. The exception is the All-Red Cable route to Canada, continued from the eastern coast of Canada across the Pacific to Australasia.

To an ocean state, as is Great Britain, submarine cables are essential in time of war, and though their strategic value has been somewhat discounted since the advent of wireless telegraphy, they are still of great value as an aid to successful intelligence. To concentrate the forces of a scattered Commonwealth requires swiftness and secrecy. To the British Commonwealth what to other nations is merely convenient and desirable, becomes, therefore, a matter of urgent necessity.

While, however, cables are an aid to successful strategy, it must not be forgotten that the motive of cable-laying was not military, but commercial, and the present network of cable lines is the reflection of British trading enterprise. Cables are indispensable in war, but they were made for peace, to keep governments and peoples in touch with one another, and to facilitate commercial intercourse.

The main cable lines may be divided into six groups :—

A. The Atlantic Group.
B. The Western Europe Group.
C. The Middle East, India, Far East and Australasia Group.
D. The South Africa and West Africa Group.
E. The East Africa—Australasia Group.
F. The Pacific Group.

These groups apparently give Great Britain a dominating position.

There are, however, one or two weaknesses :—

(*a*) The greatness of our interests makes it increasingly difficult to effectively guard every cable line from enemy attack, even though cable stations may be effectively protected by the Navy.

(*b*) Direct British telegraphic communication to South America passes through Spanish territory, to the East through Egypt or Russia. This passage of telegraphic intercourse over foreign soil engenders a sense of insecurity, and it was this feeling that prompted the All-Red Pacific Cable and the South Africa—Cocos Island—Perth route of the Eastern Telegraph Company. Moreover, it is one of the grounds on which an all-British cable direct to St. Lucia is being advocated.

To pass to consideration of the groups in some detail.

A. The Atlantic Group.

(1) *Great Britain and North America.*

(*a*) The Anglo-American Telegraph Company—a British organization, owns a line with four cables from Southern Ireland (Valentia) to Newfoundland (Heart's Content), which is continued to New Brunswick (Sydney) and Nova Scotia (Canso). This line is leased to an American Company—the Western Union Telegraph Company.

(*b*) The Direct United States Company—also British—owns a second line from Southern Ireland (Waterville, Cork) with two cables to Newfoundland (St. John's), and two to Nova Scotia (Canso) and the United States. This line is also leased to the Western Union Telegraph Company.

(*c*) A third line from Cornwall (Sennen's Bay) to New Brunswick (Bay Roberts) and New York. On this line there are three cables, two owned by, one leased to, the same companies as the second.

(*d*) There is one Government-owned Imperial Cable from Ballinskelligs Bay (Southern Ireland) to Newfoundland (Harbour Grace), and another, from Porthcurno, (Cornwall) to Fayal (Azores) and thence to Halifax (Nova Scotia).

(2) *Canada and the West Indies*, working direct from London to Nova Scotia. This was secured by diverting and adding to the German Emden—Azores—New York Cable, which was seized during the war.

From Canada to Bermuda the Halifax and Bermudan Cable Company controls the cable line. Bermuda is linked up with the West Indies by the Direct West India Cable Company to Turk's Island and Jamaica (Kingston). This line was purchased from the Direct United States Company in 1920. These two lines now carry 14 million messages a year, each full-rate message taking on the average about three quarters of an hour.

In the West Indies the Cuba Submarine Telegraph Cable Company works in Cuba and joins Cuba to Jamaica.

Jamaica is also connected not only with all the chief British Islands in the Caribbean Sea, but with :—

(*a*) Panama (Colon).
(*b*) Porto Rico and the French West Indies.
(*c*) British Guiana.

by the West India and Panama Telegraph Company.

Of the fifteen lines now crossing the Atlantic from Great Britain to Canada and the United States, six are British owned, but all except two are leased to United States Companies.

(3) *South America and the South Atlantic.*

The junction for South America is in Barbados. From Barbados branch off a series of lines and spurs administered by the Western Telegraph Company to Brazil (Pernambuco and Rio de Janeiro), Uruguay (Monte Video) and the Argentine (Buenos Aires). Moreover, cross-Atlantic lines relayed by way of Madeira, the Azores and the Cape Verde Islands, or through Ascension, provide the cable service between Western Europe and the opposite continent. None of the three lines to Pernambuco are owned by foreigners, though one is laid via St. Louis, Senegambia, and is connected with Spain by a Spanish line, and two touch at St. Vincent. In this service the British companies concerned are the Eastern Telegraph Company and the Western Telegraph Company.

B. The Western Europe Group.

Westward, Great Britain has cable connection of her own with Northern Russia (Alexandrovsk and Murmansk), with Germany (Heligoland, Emden), with France (Dieppe, Havre and Brest), with Spain (Bilbao), through the Direct Spanish Telegraph Company, and with Portugal (Vigo, Lisbon) through the Eastern Telegraph Company.

Certain local European lines, *e.g.*, from Marseilles to Barcelona, to Boru on the North African coast, and thence to Malta, from Malta to the Italian mainland, to Corfu and to Zante, from Zante to Athens, and thence across and up the Ægean to Syra, Chios, Tenedos, to the Levant (Smyrna) and the Dodecanese, to Macedonia (Salonika), through the Dardanelles to Constantinople and on to Odessa are under British control. All these, except the line from Constantinople to Odessa, which is worked by the Indo-European Telegraph Company, fall under the Western Telegraph Company.

C. The Middle East, India, Far East, and Australasia Group.

The long line to the Middle East, India, and Australasia starts from Cornwall (Porthcurno)—the Charing Cross of the Eastern Telegraph Company and its subsidiary extension companies. The main eastern sea line runs via Gibraltar—Malta — Alexandria — Port Said — Suez — Perim — Aden—Colombo — Penang—Malacca — Singapore — Hong-Kong to Shanghai.

After the war there was much delay on the line to Singapore owing to :—

(*a*) Increase of Traffic.

(*b*) The closure of (1), the Trans-Siberian route, (2), the route of the Indo-European Company, via Germany—Russia—Persia to India, (3), The cessation of cable repairs and renewals for five years.

Both (*b*) (1) and (*b*) (2) have, however, now been re-opened, and meanwhile the Eastern Telegraph Company has not only made all necessary renewals, but has added two additional lines to Singapore, touching at the necessary stations *en route* with the consequent result :—

Time taken for full time messages from London to India, Africa, Australia.

1919	7 to 10 days.
1923	3 to 4 hours.

This line, as well as the lines from Great Britain to the whole of Africa, India, China, the Far East, and the Eastern Coast of South America are in the hands of the Eastern Telegraph Company and its associated companies.

Along the line are notable junctions—Suez for the Red Sea, Aden for Bombay and East Africa, Penang for Madras and parts of the Dutch East Indies, Singapore for French Indo-China, Labuan, Batavia and Port Darwin (North Australia), Hong-Kong for the Philippines (Manila).

Off the main route a Government line joins together in succession all the ports along the Persian Gulf, and continues as far east as Bombay through Bushire and Karachi.

D. The South Africa and West Africa Group.

The great cable arteries through the straits of Gibraltar are of great strategic importance, though, if they fail us, there are still means of getting information through the numerous short lines joining Great Britain to the European continent or even by way of Canada and the United States, though in practically every case the former are only partly in British hands.

The Eastern Telegraph Company, also, has a direct line to South Africa (Cape Town) through Madeira, the Cape Verde Islands, and Ascension Island. In all the British possessions in West Africa, as well as in Angola and the French and Belgian Congo, there are numbers of short lines into the interior.

The chief places in these countries are also connected with one another in a continuous relayed line from Bathurst to Cape Town, while spurs run seawards to the Portuguese Islands in the Gulf of Guinea.

The British Company on Belgian Territory is the Belgian Telegraph Company—elsewhere it is the West African Telegraph Company.

E. The East Africa—Australasia Group.

The East African coast is the province of the Eastern and South African Telegraph Company.

The line starts at Aden and proceeds through Zanzibar and Mozambique to Durban. From Zanzibar are two short lines to Mombasa and Dar-es-Salaam, and a longer cable to the Seychelles and Mauritius, while from Mozambique runs

a line which hugs the coast, and provides direct communication between Durban and Lourenço Marques and Beira, the two principal ports of Portuguese East Africa.

Mauritius is the link not only between East Africa and Australasia but between East Africa and the Dutch East Indies. The actual junction is at Keeling (Cocos) Island, while the termini of the line are Batavia and Perth, the latter having an extension to Adelaide.

Local lines in Australasia are Government owned and worked, with the exception of the Sydney—Wellington cable, which belongs to the Eastern Telegraph Company.

There are two other means of communication between Australia and New Zealand—from Sydney direct to Auckland, and from Sydney to Auckland through Norfolk Island.

Tasmania and New South Wales are joined by a short line, as are the North and South Islands of New Zealand (Wellington—Nelson and Wellington—Blenheim).

F. The Pacific Group.

The only line across the Pacific which is British owned and worked is the Government line—laid in 1902—which runs from Vancouver Island (Bamfield) to Fanning Island, Norfolk Island, Sydney or Auckland. This line is the logical extension of the Government line from Great Britain to Canada, continued by land across Canada to Vancouver and thence down the Straits of Juan de Fuca to Bamfield, and is therefore called the All-Red Cable Route.

The annual traffic on this line has increased from 3 million words before the war to 10 million words in 1921–23. Its administrative authority, the Pacific Cable Board, completed in 1923 the laying of additional cables on the Australia—Fiji section. Between Vancouver—Fanning and Fanning—Fiji the alternative of wireless or cable over a 2,000-mile stretch is under consideration.

On the western shore of the South Pacific Great Britain has, through the West Coast of America Telegraph Company, a monopoly of the coast lines of Peru and Chile from Lima (Chorillos) to Concepcion.

To summarize the above,

A.—Atlantic.

(1) *Great Britain—North America.*

(*a*) Southern Ireland (Valentia)—Newfoundland—Canada.
(*b*) Southern Ireland (Ballinskelligs Bay)—Canada—United States.
(*c*) Cornwall (Sennen's Bay)—Canada—United States.

(2) *Canada and West Indies.*

(*a*) Halifax—Bermuda—West Indies.
(*b*) West Indies—Panama—South America (north).
(*c*) West Indies (local).

(3) *South America.*

(*a*) West Indies—South America.
(*b*) South America—Cape Verde Island or Ascension—Azores or Madeira—Europe and West Africa.

B.—Western Europe.

(*a*) Great Britain—Northern Russia.
Germany.
France.
Spain.
Portugal.
(*b*) (Local) Mediterranean—Adriatic—Ægean—Sea of Marmora—Black Sea.

C.—Middle East, India, Australasia.

(*a*) Cornwall (Porthcurno)—Mediterranean—Suez—Aden—Colombo—Straits of Malacca—Hong-Kong—Shanghai.
(*b*) Aden—India.
(*c*) Aden—East Africa.
(*d*) Persian Gulf.
(*e*) Penang—India.
(*f*) Penang—Dutch East Indies.
(*g*) Singapore—French Indo-China.
(*h*) Singapore—Dutch East Indies—North Australia.
(*i*) Hong-Kong—Philippines.

D.—East and South Africa.

Cornwall (Porthcurno)—Gold Coast—Sierra Leone—Nigeria—South Africa (Cape Town).

E.—West Africa and Australasia.

(*a*) Aden—Zanzibar—Portuguese East Africa—South Africa (Durban).
(*b*) Zanzibar—Mauritius—Keeling Island—Australia (Perth).
(*c*) Australia—New Zealand.
(*d*) Australasia (local).

F.—The Pacific Ocean.

(*a*) Canada (Bamfield)—Fanning Island—Norfolk Island—Australasia.
(*b*) Peru (Chorillos, Lima)—Chile (Concepcion).

Across Egypt, India, Canada, and Australia the Imperial chain is completed by land lines. There is, for instance, a line across the Australian continent from Port Darwin (Broome) in the north to Adelaide in the south, from Cape Town to Alexandria along the route of the projected Cape to Cairo Railway, and from east to west of Canada.

To sum up the general cable situation :—

(i) All British possessions are linked up with British owned and British worked cables.

(ii) Most cables to the east are British owned and British worked.

(iii) Most cables to the west are British owned but American leased.

(iv) Most cables to the west start from the coast of Ireland.

The relative disadvantages and advantages of cables and wireless are at present, generally speaking, rather in favour of cables.

(1) *Cablegrams take longer to get through than wireless messages.* The average time taken by a cable message from London to Canada is an hour, to Australia $3\frac{3}{4}$ hours, though, with instantaneous " tapping off " by the operator, the result of the England *v.* Australia match at Headlingley in 1921 was known in Sydney and Melbourne within ten minutes of its finish. This rate of speed has now (1924) greatly increased. If, however, the average number of words over a given line averages out at just over 1,000 an hour for a cable, it is claimed that wireless can run up to 2,500. What has to be made certain is that this greater speed with only fair accuracy is sufficient compensation for the absolute accuracy of the cable.

(2) *While cables are liable to damage from ocean earthquakes, and take some time to repair if the damage is far out at sea, in shallow waters such damage, whether from accident or by malice prepense, does not take long to detect or make good.* There is nothing in these possibilities of harm to compare with the effect of gales, floods, lightning, or enemy aircraft upon aerials and aerial stations, or with the interference to signals from atmospheric conditions.

In connection with this it may be noticed that during the Great War, though certain cables, *e.g.*, the Cross-Channel line into Belgium and the Indo-European route from Constantinople to Odessa—only re-opened at the end of 1923—were closed, none of the lines that mattered to Great Britain strategically ceased to function for an instant, and the temporary harm done to the Cocos Island cable station by the *Emden* brought indirect good in its wake by helping to cause the discovery and destruction of the raider.

On the other hand, despite the loss of the great stations of Dar-es-Salaam in East Africa, of Atakpame in Togoland, and of Windhoek in German South West Africa, German wireless was still of great value.

(3) *Apparently, the running cost of a cable line is more than that of wireless.* On the basis of original cost, this is somewhat difficult to understand. The expense of laying a cable from Sennen's Bay to New York should work out at £400 a mile, or a total cost of £1,200,000. This would bring the annual maintenance, with allowance for depreciation and interest, on capital, to £100,000.

The capital cost of a wireless station of the power capable of transmitting messages over the same distance would be £165,000.

Allowing for the same kind of expenses as the cable line, the annual cost of two stations to keep up continuous business across the Atlantic would be £120,000.

Yet the experience of the cable lines operating across the Atlantic is, that though there is only one trans-Atlantic wireless station, the Carnarvon station belonging to the Marconi Company, 30 per cent. of the business is now transacted by wireless owing to the cheaper rates, an experience which is also affirmed by the trans-continental Western Union Telegraph Company of the United States.

In all probability cables have reached the maximum of efficiency. They are, at present, more accurate, 25 per cent. faster, and practically free from interruption. In another decade the situation may well have changed. Even now, for disseminating propaganda, for communication with vessels and aircraft in motion, for communications across a desert, a range of otherwise impassable mountains, icebound lands, wireless holds the field.

We may now consider the history of Wireless Communication within the Commonwealth, the present wireless situation, and the possibilities of the future.

The history of wireless begins in 1896, when Signor Marconi came to England to develop his patents. Four years later, in 1901, the first high-power world station was commenced by the Marconi Company at Poldhu in Cornwall, and though its masts were wrecked by heavy gales in the autumn of 1901, on December 18, 1902, Senator Marconi was able to

send a wireless message from the Cape Breton station in Nova Scotia to King Edward VII in England, and in 1904 the first Imperial service was working between this country and Canada. In 1905 the Marconi Company began to build a high-power station at Clifden on the west coast of Ireland, and in 1907 a commercial trans-Atlantic service was opened between this station and Glace Bay in Nova Scotia. In 1920 ten trans-oceanic wireless systems were in operation—eight across the Atlantic, and two across part of the Pacific. Of these Great Britain, at present, has only two, which belong to the Marconi Company.

Clifden (Galway) is connected with Glace Bay (Nova Scotia), and Carnarvon with Tockerton (New York).

On the other hand, the United States is linked up with Norway (Marion, Massachusetts—Stavanger), with Germany (Tockerton—Nauen), and with France (Annapolis—Lyons), from San Francisco with Japan (Funabashi), and from Panama (Darien) with the Philippines (Cavite), this latter line over which one can speak to Honolulu and Guam, covering a distance of 5,309 miles.

France has also a trans-Atlantic wireless service from Paris (Eiffel) to Martinique (4,400 miles), which is relayed on as far as Tahiti (Papeete) in the Pacific and New Caledonia.

From Lyons (La Doua) France can also communicate with Mindonli in the French Congo as well as with Timbuctoo and Kabara, while from Bordeaux (Croix d'Hins) she is in touch with Cochin China (Saigon) (6,250 miles), and Madagascar (5,625 miles). Moreover, the French are now building a high power station at Pondicherry (India), and from Saint Assise are able to speak not only to London, New York, Beirut, Prague, Bukarest, but to Brazil and the Argentine, while the Buenos Aires station can communicate with France, Germany, and the United States. The only British eastward wireless in any way comparable with these is Leafield, which talks to Cairo (Abu Zebal).

Italy, also, has first class stations at Rome and Coltano, and two useful ones in Somaliland. Before the war Germany had powerful stations within her own country at Nauen, Norddeich, and Eilvese, and in Togoland (Kamina) and South West Africa (Windhoek).

There are also high power stations at Warsaw and Pekin, and in Holland and Japan.

We have already seen that the cable system of Great Britain is unsurpassed by that of any other nation. Why has she fallen behind other countries in the matter of wireless ? The secret history of the delay which has " left Great Britain in a position of wireless isolation " is the history of the conflict between private and State enterprise.

The need of an Imperial wireless chain was accepted by the Imperial Conference in 1911, in a decision that an Imperial wireless chain of stations, owned by the State, should be created without delay, and in July, 1912, the Postmaster-General entered into an agreement with the Marconi Company for the erection of stations in the chain in England, Egypt, East Africa, South Africa, India, Singapore, and Hong-Kong, the chain to be extended from Singapore to Australia by the erection of a station by the Australian Government at Port Darwin.

The main principles of this agreement, after considerable discussion were finally agreed to by Parliament, and the contract was ratified in August, 1913.

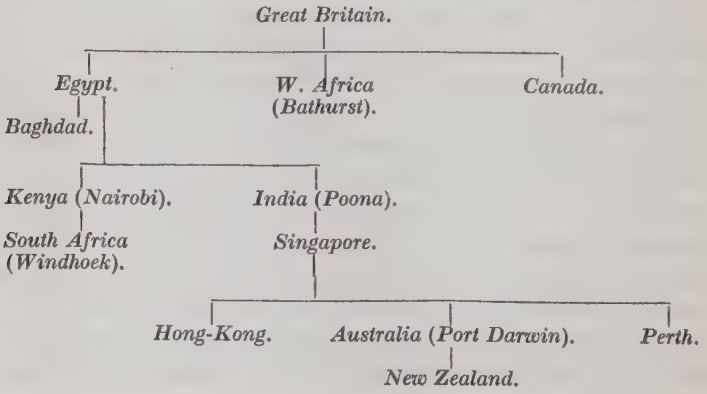
A beginning was made with the construction of the English station at Leafield near Oxford, and of the Egyptian one at Abu Zebal, near Cairo, but the outbreak of the Great War brought about a modification of the whole scheme in favour of one involving Imperial wireless ship and shore communication. This latter plan consisted of the erection of medium power stations, primarily for ship work, at Jamaica, Bermuda, St. John's (Newfoundland), Demerara, Aden, Mauritius, Durban, Port Nolloth, Bathurst (Gambia), Seychelles, Singapore, and Hong-Kong, with more powerful stations, owing to the isolation of these places, at Ascension and the Falkland Islands. All these stations, with the addition of one in the Azores on Portuguese territory, were actually erected during the war, and proved of great value for communication with ships and for point to point strategic communications, but they were not sufficiently powerful to form links in an Imperial chain. It may be mentioned that with the exception of the Azores, Jamaica, and Bermuda

stations, which were erected by the Admiralty alone, all the stations were set up by the Marconi Company for the Admiralty.

As soon as the war was over, and the Marconi Company had received £590,000 from the courts in compensation for the abandonment of the original scheme, the Government decided to go on with the erection of the Post Office stations at Leafield and Abu Zebal for the England—Egypt service, which, as we have seen, is now in operation, and to appoint a committee to go into the whole question of Imperial wireless communications.

This committee—the Imperial Wireless Telegraphy Committee—sat therefore in 1920, under the chairmanship of Sir Henry Norman, and is generally known as the Norman Committee, its report, dated June of that year, being approved by the Government and by the Imperial Conference of 1921—Australia alone of the self-governing Dominions, retaining full freedom of action as to the method of co-operation she would finally adopt.

The final recommendation of the Committee—" an Imperial wireless scheme to afford reliable, expeditious, and economical communication for commercial, social, and Press purposes throughout the Empire, and to meet Imperial strategic requirements " — was based on the establishment of " geographical steps " in the Imperial chain at distances of approximately 2,000 miles along the following essential main lines :—



Under this scheme, the distances between stations would be approximately :—

	Miles.
Great Britain (London) to Egypt (Cairo)	2400
Great Britain (London) to Canada (Montreal)	3400
Great Britain (London) to West Africa (Bathurst)	2800
Egypt (Cairo) to Kenya (Nairobi)	2400
Egypt (Cairo) to India (Poona)	2800
Kenya (Nairobi) to Windhoek	2200
Cairo to Baghdad	800
India (Poona) to Singapore	2400
Singapore to Hong-Kong	1400
Singapore to Australia (Perth	1900
Singapore to Australia (Port Darwin)	2600

To this end—

(1) The Leafield—Abu Zebal link was to be used as the first of the links of communication with British communities in Africa, new stations were to be erected in England, near Cairo, at Poona (or elsewhere in India) Singapore, Port Darwin or Perth, for communication with India, the Far East and Australia.

(2) Similar communication was to be established between England and Canada, subject to decision in conference between the British and Canadian Governments.

(3) The stations were to be planned by a Wireless Commission of four members, whose functions would, it was proposed, probably cease with the completion of the stations.

(4) The estimated cost—exclusive of the Canadian link and the existing Leafield—Abu Zebal link — was to be £1,243,000, of which £853,000 would fall on the British Government.

The objections to these recommendations were twofold :—

(*a*) To the erection and working of the stations by the State.

(*b*) To the construction of intermediate stations rather than direct working between England and India, England and Australia, and England and South Africa.

The first objection was, however, met by the answer that (i), An " Imperial " wireless system, to work efficiently, must be protected from interference from other sources, owing to the very limited number of " wave lengths " available for long-distance working, only a proportion of which, in any international agreement, could be claimed for the British

"Empire." In other words, owing to mutual interference so easily caused by the signalling of high power wireless stations, any Commonwealth scheme must be, for all practical purposes, a monopoly, and a Government monopoly is preferable to a private monopoly.

(ii) Such a Government monopoly would not preclude concessions to wireless companies on suitable conditions for long-distance communications between British territory and foreign countries.

To the second objection the reply of the Committee was, that they were in no doubt as to the superiority of direct working over intermediate communications, but doubted if the former would give an economical and efficient service at all times.

As a matter of fact, the Milner Commission, appointed by the Cabinet in December, 1920, as suggested by the Norman Committee, made it clear in their report of January, 1922, that the stations planned by the Government for the main centres would be capable of direct working with one another, except during periods of unfavourable atmospheric conditions.

In July, 1922, it was announced that the erection of the new linking stations, as well as the Hong-Kong station, would be deferred, but that the main stations would be commenced immediately.

In 1924, however, the situation is still static, pending the conclusion of arrangements between the Government and private companies as to the commencement and operation of an Imperial system.

Meanwhile, the more isolated of the Dominions—South Africa, Australia, New Zealand—have long been anxious for a definite inter-Empire wireless policy. There is no lack of small stations in the Empire.

In Great Britain (besides those already mentioned): Ballybunion, Pembroke, Horsea, Ipswich, Cleethorpes, Stonehaven, Aberdeen.

In the Mediterranean: Gibraltar (2), Malta (2).

In Egypt and the Middle East: Cairo (Abu Zebal), Alexandria (Ras-el-Tin), Aden, Berbera (Somaliland), Baghdad, Basra.

In West Africa: Bathurst.

In South Africa: Port Nolloth, Durban.

In the Indian Ocean: Seychelles, Mauritius.

In India: Peshawar, Quetta, Lahore, Delhi, Allahabad, Calcutta, Nagpur, Bombay, Secunderabad, Madras, Matara (Ceylon), Shillong (Assam), Maymyo (Burma).

In the Far East: Seletar (Singapore), Stonecutters (Hong-Kong).

In Australasia: Rabaul (New Guinea), Perth, Pennant Hills (New South Wales), Awanui (North Island, New Zealand) Awarua (South Island, New Zealand).

In the Pacific: Nauru, Apia (Samoa), Chatham Islands.

In Canada: Newcastle and Barrington Passage (Nova Scotia), Glace Bay (New Brunswick).

In Newfoundland: St. John's.

In the Atlantic: Ascension, Falkland Islands, though most of these cannot communicate directly for more than a thousand miles.

Moreover, the recommendations of the Norman Committee have given way to the decision to establish a direct working Commonwealth chain. The present scheme, as laid down by the Postmaster-General, allows the Dominions to establish direct communication with all parts of the world or to become part of this chain. New Zealand would prefer to do the latter, possibly by the extension of her stations at Awarua and Apia. On the other hand, Australia, South Africa, and Canada have considered possible arrangements with the Marconi Company to erect and work high-power wireless stations in their Dominions for the provision of cheap and rapid communication with the Mother Country. The Eastern Telegraph Company is also anxious to establish an India service, a decision in regard to which is awaited from the Government of India, who have been consulted by the British Government.

Australia has formed the Amalgamated Wireless Company of Australia, Limited, to erect high-power stations in Australia, Canada (Vancouver, with a subsidiary station at Montreal), and the United Kingdom, which shall provide regular and continuous communications for 300 days of the year on a minimum basis of 20 words a minute each way for 12 hours a day at a rate $33\frac{1}{3}$ per cent. less than the cable service.

If the negotiations between the British Government on the one hand and the Marconi Company on the other come to fruition, the Marconi Company propose to construct two British stations. Anyway, the Government intends to build an Imperial station at Hillmorton, near Rugby. All of these will be as powerful as any stations in the world.

Indeed, the plans of the Marconi Company are on a very wide basis, and include eventually six trunk stations in the United Kingdom and 27 branch stations in various parts of the Empire, comprising 3 each in India and Egypt, 2 each in East Africa, Canada, South Africa, West Africa, South America, Australia, New Zealand and Singapore, and 1 each in Hong-Kong, Central America, South America, and the West Indies (the latter to have 9 feeder stations).

All these plans and their world intentions were set down in concrete form on a wireless map, which appeared in *The Times* of May 24, 1923.

The terms on which private wireless companies are to receive licences from the Government—to allow for a fair proportion of outgoing and incoming business to both the State and the private company—include :—

(1) The working of the service by the operators of the General Post Office, charging the Company its share of the cost of operation, as well as overhead charges.

(2) All revenue to be pooled and divided between the State and the company, in proportion to the effective power of the stations.

(3) Unrouted messages to be divided between cables and wireless, so as to cause the least possible delay in transmission.

(4) Wireless rates, if possible, to be lower than cable rates.

(5) The State to have the right to admit any companies to the pool, or to license companies without such admission.

Note on Government Wireless Plans.

The wireless situation has again been modified by a further report of a Committee set up by the Government in February, 1924, under the chairmanship of Mr. Robert Donald.

This Committee recommended that :—

(*a*) A State-owned Commonwealth wireless scheme operated directly by the Post Office for communication with the Overseas Dominions, Colonies, Protectorates, and Territories. (This scheme not to replace the private Anglo-Canadian wireless service.)

(*b*) The Leafield station be enlarged, the Hillmorton station be extended to a 16-mast station, and another world-range station be built.

THE SELF-GOVERNING DOMINIONS.

CHAPTER IX.

The Dominion of Canada. The Colony of Newfoundland.

Canada.

1. Physical Features.

Canada may be divided into three distinct physical areas; the forest and mineral region of the Western Mountains, from the Pacific to the Rocky Mountains (British Columbia); the Central Plains or prairie, "for which the speech of England hath no name," (Alberta, Saskatchewan, Manitoba), from the Rockies to the Great Lakes; the woods and timbered grass lands of the Eastern Highlands (Ontario, Quebec, the Maritime Provinces).

Each of these areas has its own particular products :—

The Pacific region : Timber, fruit, coal.

The Prairie region : Wheat, barley, oats, cattle.

The Atlantic region : Cattle, butter, cheese, fruit, iron-ore, coal.

Over all these regions, except in British Columbia, and in the Maritime Provinces (Nova Scotia, New Brunswick, Prince Edward Island), the thermometer stands always below freezing point from November to April. In British Columbia the mean annual temperature is 50° Fahrenheit, or that of the south of England. The rainfall is highest (40 inches) on the Atlantic and Pacific coasts. In the centre of Canada, where the rainfall is never more than 20 inches, the season of extreme cold is thus dry and bright.

2. Railways and Waterways.

There were in operation in Canada on January 1, 1922, approximately 40,000 miles of railways, of which 22,000 miles belonged to the railways now incorporated in the Canadian National Railway System, 13,000 miles to the Canadian Pacific, and 5,000 miles to other and smaller companies.

The two main railway groups are, therefore, the Canadian Pacific Railway (C.P.R.), and the Canadian National Railways comprising the Grand Trunk, the Grand Trunk Pacific, the Canadian Northern, and the Intercolonial.

(*a*) **The Canadian Pacific Railway,** which helped to make Canada, by joining together its East and its West, starts from St. John's (New Brunswick) crosses into Maine, passes again into Quebec near Megantic, and proceeds by way of Sherbrooke to Montreal. Thence it runs westward along the Ottawa river to Ottawa, the Dominion capital. It then passes through the forests of Ontario to Sudbury, the nickel and copper centre, and continues to Port Arthur and Fort William, the great grain posts of Lake Superior. From Fort William it runs through the timber region of the Lake of the Woods, and finally comes out at Winnipeg, the largest commercial and railway centre of the prairies and its natural gate. Beyond Winnipeg the Canadian Pacific Railway traverses the wheat fields of the middle west to Regina, and then crosses the irrigated farms and ranches of the Rocky Mountain foothills to Calgary. From Calgary it climbs the Rockies through the Kicking Horse Pass, and the Selkirk Range over Roger's Pass, and finally descends to the valley of the Fraser River and to its terminus at Vancouver, 2,906 miles from Montreal. Another alternative trans-continental line is also being built from Winnipeg to Vancouver by Lethbridge through the Crow's Nest Pass.

Along this main line are many of the large towns of Canada :—

Order in respect of Population.	*Town.*	*Population. (approx.).*
11	St. John (New Brunswick)	46,000
1	Montreal	600,000
5	Ottawa	107,000
3	Winnipeg	137,000
13	Regina	30,000
10	Calgary	40,000
4	Vancouver	100,000

and its spurs—through the Ontario Peninsula to Kingston, Toronto, Hamilton, London ; from Winnipeg and Calgary to Edmonton—effect close communication with nearly all the rest.

Order in respect of Population.	*Town.*	*Population (approx.).*
16	Kingston	23,000
2	Toronto	377,000
6	Hamilton	82,000
9	London	61,000
14	Edmonton	25,000

The Canadian Pacific Railway is the greatest Commonwealth Railway, and may have great strategic importance for transporting troops and munitions from England to the Far East. The time taken from Liverpool to Yokohama is only 21 days, and the Canadian Pacific Railway owns its own fleet of steamers, both from Montreal or St. John to Liverpool, and from Vancouver to Yokohama, Hong-Kong and the eastern ports of Australia.

(*b*) **The Canadian National Railways.**—The Canadian National Railway system under Government control was completed, by the inclusion of the Grand Trunk Railway, in October, 1922.

(1) *The Grand Trunk Railway.* This line starts at Moneton, New Brunswick, the junction for St. John and Halifax, passes to Montreal and Quebec by Blue River along the opposite side of the St. Lawrence, and thence proceeds by a northern route to Winnipeg. The river is crossed by short spurs across the Victoria Bridge to Montreal, and from Levis across the Quebec Bridge to Quebec. From Winnipeg the line becomes the Grand Trunk Pacific, and reaches the Pacific by way of Edmonton through the low Yellowhead Pass at Prince Rupert. This route to Yokohama is 400 miles shorter than by Vancouver, and, on account of its easy gradients, is quicker and safer than by the Canadian Pacific Railway.

(2) *The Canadian Northern Railway* (Western section) begins at Port Arthur and follows closely the Canadian Pacific Railway on Lake Superior to Winnipeg. It then branches north to Edmonton, crosses the Rockies by the same pass as the Grand Trunk Pacific, but diverges south to its terminus at Vancouver. The Eastern section goes to Montreal, whence the Royal Line runs in connection to Avonmouth Docks, Bristol. It is from the Canadian Northern Railway that the new Hudson Bay Railway is being built.

(3) *The Intercolonial Railway* is one of the oldest in Canada, and joins Montreal to the winter ports of Halifax and St. John. Unlike the Grand Trunk, it remains wholly within Canadian territory.

It will be noticed that these railways touch only three of the large towns of the Dominion, *i.e.* :—

Order in respect of Population.	*Town.*	*Population (approx.).*
7	Quebec	79,000
8	Halifax	58,000
11	St. John	47,000

Waterways and Canals.—One of the great advantages of Canada is the free, uninterrupted river and lake communication between the Atlantic coast of eastern Canada and the prairies (a distance of over 2,000 miles), so that steamers can travel by way of the great lakes to the sea without breaking bulk; from Port Arthur and Fort William on Lake Superior through the Sault St. Marie ("Soo") Canal to Lake Huron, from Lake Huron to Lake Erie, by the St. Clair River, Lake St. Clair, and the Detroit River, from Lake Erie to Lake Ontario by the twenty-six locks of the Welland Canal, and from Lake Ontario to the St. Lawrence River by the Rideau Canal and the Ottawa River.

The annual tonnage along this route is almost twice as much as that through the Suez Canal, and it is proposed to shorten the distance and provide for the passage of larger ships by the construction of a new canal, 50 miles long, from Georgian Bay on Lake Huron via Lake Nipissing to the Ottawa River, which will decrease the total mileage by 300 miles. There is also a waterway from Lake Ontario to Montreal by way of the Williamsburg System Canals, the Cornwall Canal, the Soulanges Canal, and the Lachine Canal, and from Lake Ontario to Georgian Bay (Lake Huron) along the Trent Canal.

3. Canada as a Recruiting Base.

Canada has a population of $8\frac{3}{4}$ millions, and an area of $3\frac{3}{4}$ million square miles (thirty times the area of the United Kingdom and four times that of British India). She is, therefore, very sparsely populated, having less than three persons to the square mile.

Her population may be divided up into the following divisions according to origin :—

ATLANTIC OCEAN
HUDSON BAY
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
NEW BRUNSWICK
P.E.I.
N. SCOTIA
AREA OF WHEAT PRODUCTION
Prince Rupert
Vancouver
Victoria
Edmonton
Calgary
Lethbridge
Medicine Hat
Saskatoon
Regina
Le Pas
Port Nelson
Winnipeg
Ft William
Pt. Arthur
L. Superior
Duluth
Minneapolis
St. Paul
L. Michigan
L. Huron
L. Erie
L. Ontario
Chicago
Buffalo
Depot Harbour
Ottawa
Montreal
Quebec
Sherbrooke
St. John
Halifax
Portland
Boston
New York
C.N.R.
C.P.R.
A
B
C
D
E
THE WHEAT LINES OF CANADA
A Proposed Georgian Bay Canal
B Trent Canal
C Erie Canal
D Welland Canal
E Sault Ste Marie ('Soo') Canal
Scale
100 0 100 200 300 400 500 Miles
Militarn Geography

Origin.	*Number.*
British	4,800,000
French-Canadian	2,100,000
American	1,500,000
Aboriginal Indian	100,000
Chinese	27,000
Japanese	6,000
Eskimo	5,000
Of other nationalities	500,000

The aboriginal native population of Canada is small, segregated on reserves, and loyal—there has been no outward expression of discontent since the rebellion of 1885—and the Japanese and Chinese population is restricted by the imposition of a head tax of $200 and $500 respectively. There, is consequently, no coloured problem, as in South Africa. Like South Africa, however, Canada has in her midst people of a white race, who do not speak English either among themselves or as an official language. These are the French Canadians, living for the most part in the province of Quebec. They are the descendants of the original French settlers who came to Canada in the sixteenth, seventeenth, and eighteenth centuries, and they have not been augmented by immigration since that time. When Great Britain acquired Canada, in 1763, they numbered not more than 60,000, but they have increased greatly. Their affection is not towards France, but towards French Canada, which is their *patrie*, and towards the Commonwealth in which they can retain their customs and their tongue.

Of the Canadian people of British origin, some are descended from the soldiers who helped to win Canada for the Crown, some spring from the loyalists who would not remain in the new American republic after the recognition of the independence of the United States (U.E.L., or " United Empire Loyalists "), many have come to the country within the last forty years, especially after 1903 and before 1914.

Years.	*British Immigrants.*
1881–1885	153,000
1886–1890	127,000
1891–1895	98,000
1896–1900	51,000
1901–1905	187,000
1906–1910	376,000
1911–1915	598,000
1916–1920	80,000
1921–1922	113,000
Total	1,783,000

In the four years before the war, Canada was absorbing annually an average of 135,000 immigrants from the British Isles.

Emigration from the United States, during the same period of years, ran closely parallel to that from the Mother Country, and reached a total of 2,150,000.

There is practically no question as to the loyalty of both absorbed and original Canadians to the Commonwealth. French Canada produced Sir Georges Cartier, one of the Fathers of Confederation, and, of recent years, Sir Wilfrid Laurier.

Even the decrease of the political power of Quebec, the home of the French-Canadian, consequent on the growth of the West, has had little, if any, effect on its firm adherence to Canada and to the Commonwealth. The problem of the absorption of the American is a little more difficult. The close proximity of Canada to the United States, the long artificial frontier, the easy natural communication, owing to the fact that the mountains of North America run roughly north by south, similarity of interest, has naturally made the two countries good friends. But when, in 1911, the American executive offered a treaty of commercial reciprocity, and Canada definitely refused it, she expressed by her refusal her certain preference for nationality within the British Commonwealth to nationality within a Pan-American union. The war only served to stress this preference.

So immigrants from across the line as well as immigrants from over the seas become in good time Canadian citizens, and Canadian citizenship implies citizenship of the British Commonwealth. The military foundations of the Commonwealth were laid in Great Britain, they continue to rise in Canada, oldest and largest of the Britains beyond the seas. In the Great War Canada produced an army larger than any British Army that had taken the field in previous wars, out of the Canadian Militia of 3,000 strong. Notwithstanding the fact that everything was improvised—staff, organization, equipment, training—as her forces grew, after the capture of the Vimy Heights and the storming of the Passchendaele Ridge at the end of the Third Battle of Ypres, the Canadians were recognized as " shock " troops of the first order, and

increased their reputation at the bursting of the Drocourt—Quéant switch. By the end of the war Canada had enlisted 630,000 men, or 18·5 per cent. of her white male population, and lost 206,000 or 6·04 per cent.

No more need be said of Canada as a recruiting base, except that as her bare spaces are filled with immigrants of British stock, so does her potentiality in this respect increase.

Canada as a Technical Base.

(*a*) *Food Supplies.*—In 1922, Canada supplied Great Britain with 21 per cent. of her imported wheat, wheatmeal, and flour. This was not nearly as much as the United States (46 per cent.), or as much as Australia (23 per cent.). It does, however, represent a large proportion of Canada's own export, and, as Manitoba, Alberta, and Saskatchewan, the wheat-growing provinces, have a population density at present far below their capacity—it is estimated that Manitoba alone can sustain 30 million people—this amount should increase proportionately with the decrease of the import from the United States.

In 1922, also, Canada supplied the United Kingdom with 14 per cent. of the bacon, 43 per cent. of the cheese, 15 per cent. of the eggs, 43 per cent. of the oats, and 20 per cent. of the barley that she imported from overseas. This is not, of course, all the Commonwealth food trade of Canada. She gives also to Newfoundland, to the West Indies, and to British Guiana of her cheese, her butter, her fish, and her grain.

(*b*) *Raw Materials.*—Of raw materials—except timber and wood—Canada gives the Commonwealth but little. She is without maize, tobacco, petroleum, and raw cotton. For these she looks to her nearest neighbour, and the exchange is made in flour and oatmeal, in fish, in wool, in copper (95 per cent. of her export), and in all her iron ore.

(*c*) *Minerals.*—In minerals Canada is rich, and will be richer still. In the Ontario peninsula (Sudbury) is copper and nickel, in Alberta and British Columbia rich coal deposits, in the northern region between Lake Huron and Lake Ontario iron. On the other hand, the oil deposits of Canada have not yet proved themselves of any great value.

As a manufacturing country, Canada has infinite possibilities. She has all the raw materials, except rubber and cotton. She has good coal deposits, and unfailing water power in lakes and rivers. Moreover, her navigable water, ways are supplemented by her railway system. Only, however, when she has labour and a market, will she begin really to turn out manufactured goods.

The Defence of Canada.

Canada has four frontiers, the first three of which are vulnerable.

(1) The Pacific seaboard.
(2) The Atlantic seaboard.
(3) The United States Frontier.
(4) The Northern Frontier.

The defence of Canada involves, therefore, the consideration of two factors, (*a*), her protection from external attack by sea, and (*b*), her security in face of attack by land.

(*a*) *Defence by Sea.*—The two possible points of attack are British Columbia and the Atlantic Coast. It has been pointed out that if British Columbia is threatened by a European Power, its communications must run first by rail and then by water, while British communications run first by water and then by rail, so that the struggle would turn on the relative merits of these lines of concentration. No force, however, could venture to assail the western shore of the Pacific unless it had secured control of sea power in that ocean, and if Great Britain was unable to hold that power in any ocean of the world for any length of time, she would be in a parlous state with regard to Canada.

The vulnerable portion of the Pacific coast lies on Vancouver Island and behind it along the delta of the Fraser River. On the island are the coal deposits of Nanaimo and the city of Victoria, on the mainland lies Vancouver, the terminus of both the Canadian Pacific Railway and of the Canadian Northern branch of the National railway system. North of Vancouver Island there is nothing except Prince Rupert, which may one day become an important naval harbour.

On the Atlantic, Canada is even more dependent on the supremacy of the British Navy. She cannot fight alone, and if her communications with Great Britain were cut off, she would most certainly be snatched away.

The vulnerable portion of the Atlantic coast, which is open to attack all the year round, includes the whole of Nova Scotia, facing the Atlantic, and so much of New Brunswick and Nova Scotia as borders the Bay of Fundy. The Gulf of the St. Lawrence and the St. Lawrence River are frozen up from November to April.

(*b*) *Defence by Land.*—The northern frontier of Canada is not yet vulnerable, as the railway uniting central and western Canada has been completed along only four-fifths of its projected length from Le Pas to Port Nelson. Hudson's Bay itself is only open for five months of the year.

The defence of the southern frontier is *the* serious military problem of Canada.

In the first place, the thickly populated areas of Canada are nowhere more than 400 miles from the United States.

Secondly, the trans-continental lines all pass close to the frontier, and at certain points all the lines are within 70 miles of the artificial boundary of the 45th parallel.

In southern Manitoba, for instance, the existence of Lakes Winnipeg and Manitoba has driven all the lateral lines down to this distance between Winnipeg and Portage La Prairie, from which points several lines connect with the United States, and the breaking of communications at this point, with the inevitable loss of Manitoba, would separate Alberta and Saskatchewan, in which 40 per cent. of the people are of American origin, as well as British Columbia from the more populous provinces of eastern Canada.

Winnipeg is, therefore, the most important strategical point between the "Soo" Canal and the Pacific. Apart from the fact that the Canadian lines approach the American frontier so closely in this area, branching away north soon after they have passed between Estevan to the west of Winnipeg and the Lake of the Woods to the east, no fewer than eighteen American railways of common gauge, 4ft. 8½ins., are connected with, or could easily connect with, the Canadian lines. From the Lake of the Woods the boundary line begins to follow the natural river and lake frontiers,

on which are the valuable strategical positions of Port Arthur and Fort William, with their docks, railway terminals, and grain elevators. At 95° west the frontier runs south-east along Pigeon River to Lake Superior, still south across the lake and south through Lakes Huron and St. Clair. East of Detroit it turns north-east, and passes down the middle of Lakes Erie and Ontario until it joins the northern bank of the St. Lawrence, and follows it along to 45° north, 75 miles from Montreal. Here, in Ontario and southern Quebec, is the nerve ganglion of Canada.

The Great Lakes are not so difficult to defend, and are protected from armed forces by the Rush—Bagot Treaty of 1817 between the United States and Canada. Under this Treaty the naval power of both countries is limited to one 100-ton vessel, with one 18-pounder, on Lake Ontario ; one 100-ton vessel, with one 18-pounder, on Lake Champlain ; and one 100-ton vessel, with one 18-pounder, on the Upper Lakes.

The Rush–Bagot Treaty was supplemented by the Washington Treaty of 1909, appointing an International Joint Commission to look after these boundary waters.

The Ontario peninsula, however, touches the United States at four points—at Sault St. Marie, at the St. Clair River, at Detroit River, and at the Niagara River.

This peninsula contains nearly one-third of the population of Canada, practically all of British origin—the population of Canada being divided approximately as follows :—

Maritime Provinces, 1 million.
Quebec, $2\frac{1}{2}$ millions.
Ontario, $2\frac{3}{4}$ millions.
Prairie Provinces, 2 millions.
British Columbia, $\frac{1}{2}$ million.

It contains the richest agricultural area of the Dominion. It includes the oil fields of Petrolea, the nickel deposits of Sudbury, the great city of Toronto. It is the focus of trade and manufacture, and though it possesses an advantage in the Thames River, whose steep banks present a barrier on the west, its capture would cut Canada in half and destroy her heart.

After it leaves the St. Lawrence the frontier follows the 45th parallel to Hereford on the New Hampshire border. It then turns north-east along the "Height of Land" to 69° west, where it again bends east and south along the St. Croix River to its mouth in Passamaquoddy Bay.

On the St. Lawrence, which is a considerable barrier, but whose rapids are avoided by canals, lies Montreal, the financial capital; to the north of the river and separated from it by difficult country, Ottawa, the political capital, and Quebec, a disembarking port for Commonwealth aid. From Cornwall, west of Montreal, to Quebec, are a series of bridgeheads.

To the south of this area are the populous states of New Hampshire, Vermont, and New York; between Quebec and New Brunswick, the re-entrant state of Maine.

The railways of the three American states bordering Canada at this point run south and north towards Canada along the Connecticut River, by the historic approach of Lake Champlain, and by the west shore of Lake Ontario. In each case the Adirondack mountains furnish an effective obstacle.

Through the Maine re-entrant runs the Grand Trunk to Portland, Maine, and also the Canadian Pacific Railway short line from Montreal to St. John, New Brunswick. The present boundary, which was determined by the Ashburton Treaty of 1842, lengthens the mileage of a railway from west to east, if it was to remain on Canadian soil, by 400 miles. Maine, however, is thinly populated with a large French-Canadian element, and could easily be secured.

The long line of the frontier does not quite end at this point. There is still the boundary between Alaska and the Yukon, which was delimited in 1903.

On either side of the whole line, which is often weak, live two English-speaking peoples, the population of one of which is at present only one-twelfth that of the other. Though in course of time this disproportion will lessen, it might well cause alarm if it was forgotten that the best defence of the Canadian–American frontier lies in the fact that there is not a gun nor a fort along the entire boundary. Further, there is no room for movement between the frontier and the sea, and a force friendly to Canada, landing on the east coast,

could seriously menace a force operating north along the Hudson River, especially if it were summer time and could be supported on the line of the St. Lawrence River.

Newfoundland.

The Colony of Newfoundland is the oldest in age, as it is the smallest both in area and population, of the self-governing Dominions.

Physical Features.

Newfoundland is an island, about three-quarters the size of England and Wales. It is separated from the North American mainland by the straits of Belle Isle, ten miles broad. It has a very indented coast and many good harbours. The comparatively little known interior is an area of marshes "barrens," and lakes, interspersed with small patches of woodland.

Parallel with its west coast runs a series of small ridges, with intervening well-timbered valleys. Out of these valleys comes a plentiful supply of wood pulp.

The climate of the island is not so extreme as on the mainland, the mean annual temperature at the capital, St. John's, being 42° Fahrenheit, but it is cold in winter, owing to the Labrador current. The rainfall, caused as in the Mother Country by cyclonic disturbances, is heavy (about 40 inches) and well distributed.

The great climatic drawback is the prevalence of fog on the coast and in the neighbouring seas.

Newfoundland as a Recruiting Base.

The population of Newfoundland, including Labrador (4,000), is just over a quarter of a million (258,000). It is practically all of British descent, and there is no racial or native problem (the last aborigine died in 1829).

Owing to the easy distance of every part of the island from the sea, and the fisheries in its adjacent waters, many of the men of Newfoundland are trained to service afloat from their childhood.

As far back as 1902 the colony was contributing £3,000 a year to naval defence, spending a capital sum of £18,000 on preparing and equipping a drill ship, and undertaking to maintain a branch of the naval reserve of not less than 600 men.

In reckoning, therefore, her recruiting possibilities, based on war service figures, one should also take into account the very large number unrecorded, who served in the Mercantile Marine and the Naval Reserve, as well as those 11,922 men who were recruited for the Newfoundland Regiment. Despite her small size, more than any other of the Dominions can Newfoundland be depended on in time of war as a recruiting ground for the navy and its auxiliaries.

Newfoundland as a Technical Base.

While fishing is the main industry, as about one-third of the population actually fish and as many more are dependent upon fishing, there is also a considerable deposit of hematite iron ore on Bell Island in Conception Bay, which is being worked to the tune of a million tons annually, and dispatched after quarrying to Sydney on Cape Breton Island ; a good deal of oil-bearing shale and a large amount of wood-pulp for the paper (newsprint) mills. Indeed, the latter now produce 60 million tons a year, and their product is likely to be doubled in the near future.

There is also a small quantity of lead, copper, asbestos, silver, nickel, and gold.

As far as imports are concerned, as within the last twenty-five years the purchasing power of the Colony has increased, she has bought less from Great Britain and more from her nearer neighbours, Canada and the United States. The latter country takes £2,000,000 out of Newfoundland every year without any reciprocal advantage.

Railways and Waterways.

There is one railway starting from the capital, St. John's, and crossing the island from east to west to Cape Ray, with five short spurs. The total length is 688 miles.

There are no canals, but on every coast there are long fiords, and the whole country is full of small lakes.

The Defence of Newfoundland.

The defence of Newfoundland is essentially a naval matter, wrapped up in the Atlantic defence of Canada, inasmuch as Newfoundland, almost closing the Gulf of St. Lawrence, is closer to Great Britain than any part of the North American

continent. From St. John's to the north-west corner of Ireland is only 1,700 miles, and Newfoundland is the half-way house for submarine telegraph cables, wireless stations, and naval movements on the North Atlantic. Newfoundland, also, was the starting point of the first trans-atlantic air flight.

Any of the eastern and southern harbours—especially those reached by the railway—Bonavista Bay, Conception Bay, Trinity Bay, St. Mary's Bay, Placentia Bay, would make an excellent base and rendezvous for the British Fleet in the event of war on the North American continent. The use of Newfoundland for this purpose would also secure the safety of the trans-atlantic cable stations at Placentia Bay, Bay Roberts, Harbour Grace, and Heart's Content, besides protecting the wireless at Cape Race, which is of great service to ships in the North Atlantic.

CHAPTER X.

The Union of South Africa.

Physical Features.

South Africa consists of a gently undulating plateau, known as the High Veldt, broken here and there by isolated flat-topped hills, or kopjes. The Veldt has an average height of 5,000 feet above sea level, its eastern or Natal edge (the Drakensberg range) being higher than the western, and falling rapidly to the sea in a steep, broken descent. Into the High Veldt runs the high granite mineral land of the Witwatersrand. To the south of the plateau are four steps to the sea, the Bush or Low Veldt, which borders on Portuguese territory, the broad stretch of the Great Karroo, 400 miles broad and 100 miles in length, the much narrower Little Karroo, and the very narrow coastal plain. Only the northern edge of the Transvaal lies within the tropics, the rest of the Union being in the warm temperate zone.

Over the greater part of the plateau the atmosphere is dry and cool, getting hotter as it descends to the east coast, owing to the warm Mozambique or Agulhas current, and colder on the west coast, because of the cold Benguela current from the Antarctic.

There is on the whole but little rainfall, the wettest district, on the Natal coast, averaging 40 inches, and Port Nolloth, the wireless station, on the west coast, less than 3 inches. Indeed, the lack of rainfall, due to the fact that the prevailing winds are the South-East Trades, which deposit most of their moisture on the east coast, and have none for the western side which forms the Kalahari Desert, is one of the great drawbacks of South Africa. Moreover, these winds blow their hardest during the hottest months, so that Durban, for instance, gets two-thirds of its rain in the summer, between October and March.

The Cape Town peninsula, on the other hand, on to which blow the Roaring Forties, has the same proportion of its rainfall in the four winter months.

On the whole, the climate is healthy and well-suited to the white man, except in the low Bush Veldt of the eastern Transvaal. Only the long droughts up the interior spoil many parts of the Union for agriculture, and render the rivers of negligible value either for irrigation or transport.

South Africa as a Recruiting Base.

South Africa includes not only the four provinces which make up the Union, but the mandated territory of British South-West Africa and the protectorates of Basutoland, Bechuanaland and Swaziland.

The area of the whole is approximately 1,080,000 square miles, divided as follows :—

	Square Miles
The Union of South Africa	470,000
Basutoland	12,000
Bechuanaland	275,000
Swaziland	7,000
British South-West Africa	320,000

It is, therefore, one-third the size of Canada and ten times the size of the United Kingdom. The Union alone is about four times the size of the United Kingdom.

In proportion to her area, South Africa is far more thickly populated than Canada, with the following distribution :—

	Population.
Union of South Africa	6,900,000
Basutoland	500,000
Bechuanaland	160,000
Swaziland	120,000
British South-West Africa	240,000
Total	7,920,000

the greatest density being in the native state of Basutoland, over 48 to the square mile, and in Natal, the best watered province, 41 to the square mile.

In the Union the density is 15, though in the Cape of Good Hope it falls as low as 9, owing to the dryness of the western region.

This population is racially distributed between whites of British or Dutch descent, and coloured persons, blacks or Asiatics.

In the provinces of the Union the following is the proportionate distribution :—

	Whites.	*Blacks.*	*Asiatics.*
Cape of Good Hope	650,000	2,110,000	20,000
Natal	140,000	1,000,000	190,000
Orange Free State	190,000	440,000	5,000
Transvaal	560,000	1,550,000	45,000
Total	1,540,000	5,100,000	260,000

Total : 6,900,000.

It will be seen, therefore, that South Africa is limited as a recruiting base owing to the presence of two native elements.

The value of natives as recruits depends on four factors :—

(*a*) Their suitability as a fighting force.

(*b*) Their adaptability to climatic conditions, other than those in which they live.

(*c*) Their ability to find leaders of their own race.

(*d*) If they are not of fighting stock, their value in labour service.

To put these arguments in concrete form : (*a*), some native races, such as the Zulu, Masai or Maoris of New Zealand, are natural soldiers.

(*b*) Many natives living under tropical conditions find it difficult to stand the cold damp winter of Western Europe. For instance, during the war, the Moriori of the Cook Archipelago were very hard hit by the conditions they had to face in Egypt.

(*c*) Many natives do excellent service, but require white leadership. Nowhere is this seen more strongly than in the regiments of the King's African Rifles and West African Frontier Field Force.

(*d*) Native labour value varies considerably. There are few carriers, for instance, even in Nigeria, who can achieve so much in a given time as the Chinese coolie.

Keeping these limitations in view we may now consider first of all the blacks, usually called Kafirs.

Over the whole of South Africa the blacks of the Bantu or negroid race common to all Africa outnumber the whites by four to one, and as will be seen by the preceding table, in Natal the proportion rises as high as 7 to 1.

This relation is also affected by the fact that unlike other coloured races, the blacks of South Africa are increasing,

and that in Natal and the Orange Free State this rate of increase is actually greater than that of the whites.

Province.	*Decennial Increase. 1911–1921. Percentage.*	
	Whites.	*Blacks.*
Cape of Good Hope	12	7
Natal	4	21
Orange Free State	8	36
Transvaal	29	22

This disproportion presents, therefore, a serious problem, though it is slightly lessened by the segregation of the blacks in the hot coastal areas, and the concentration of the whites in the healthier portions of the Union, especially on the High Veldt.

Moreover, the blacks provide ample cheap labour for the Union, for South Africa, unlike Canada and Australia, has not yet attracted emigrants in any large numbers. As, however, the natives grow in intelligence and numbers, white reinforcements are becoming a vital necessity.

The use of South African blacks as fighting troops is, of course, always a possibility. Many of them, notably the Zulu and Swazi, come of good fighting stock, with a natural instinct for war, and a special aptitude for military discipline. During the war, notwithstanding local troubles, they remained consistently loyal.

The Asiatic element in the Union consists approximately of 161,000 Indians and Malays who first came into South Africa fifty years ago to work as indentured labourers on sugar and tea plantations, and are mostly confined to the British province, the province of Natal. The Indians are restricted in their trade, and in their ownership of land by the Asiatic Trading and Land Act, of 1919, and in immigration by the unwillingness of the Union Government—as expressed at the Imperial Conferences of 1918, 1921, and again in 1923—to loosen their restrictions as to the admission of Indians, or to admit them to the franchise. Actually, in the Transvaal, they cannot acquire land, and cannot occupy land in the gold area. In Natal there are rigid restrictions on their acquisition of land in townships.

Notwithstanding this, there is a large Asiatic population, especially in the large cities in the veldt country of northern Natal, and on the Rand.

The aborigines of the Union are the yellow-skinned bushmen and the Hottentots, the latter of whom, with small numbers, remain almost stationary.

The white population of South Africa consists, as we have seen, of two portions of European stock—those of British descent, and the descendants of the original Dutch population, planted by the Dutch East India Company between 1652 and 1690. These people, who are termed Boers, speak their own language—a clipped, broken patois, known as Taal, which has complete equality with English.

The Boers number 40 per cent. of the total white population. There was a small disloyal extreme Nationalist element at the beginning of the Great War, but the South African forces alone were responsible for the conquest of German East (Tanganyika) Territory and German (British) South-West Africa, and South African enlistments, 11·12 per cent. of her total white male population, compare favourably with those of the other Dominions. Moreover, the Boer made and makes not only a good soldier, but a splendid farmer colonist.

South Africa as a Technical Base.

Though the Union of South Africa is a farmers' country, the small but uncertain rainfall in any but the coastal districts, the lack of irrigation, and the prevalence of insect pests—especially locusts—in Natal and the Orange Free State have retarded the progress of farming. Consequently, except for fruit, the export of which is increasing every year, South Africa does not send any food products, with the exception of sugar, oats, and maize, to the United Kingdom, and in 1920 had herself to import food supplies, especially meat, butter, and cheese. Both local and foreign markets are at hand, but can be secured and kept mainly by irrigation and scientific " dry farming."

Nor is the Union a manufacturing country. None of her exports in 1920 and 1921 were of manufactured goods, and of the £102 millions spent outside the Dominion in 1920, and the £58 millions spent in 1921, more than half was spent on manufactures. In proportion to her population, South Africa is Great Britain's best customer for apparel and cotton and woollen goods.

Above all things, South Africa is a miners' country, and most of her wealth and four-fifths of her export trade is derived from her mines.

The minerals South Africa produces are not only gold—the Rand district of the Transvaal is responsible for one-third of the world's annual output—but diamonds, coal, asbestos, copper, silver, salt, tin, and antimony.

Coal comes mainly from the Transvaal and Natal. It is not quite as good as Cardiff or Pennsylvania coal, but is very acceptable, not only for the needs of the Dominion, but for ships plying in and about the Indian Ocean and bunkering at Durban.

The best copper deposits are at Ookiep in the north-west corner of the Cape province.

It may be noted that there is a strong movement afoot to develop trade between the Union and other British possessions in Central Africa. To this end draft trade agreements have already been drawn up between the Union Government and the two colonies of Kenya and Uganda.

The Defence of South Africa.

The strategical position of South Africa in regard to naval defence has already been dealt with. On her land frontiers South Africa is well protected, by the existence of Portuguese Territory on east and west, and by the colony of Southern Rhodesia, likely at no distant time to be the home of a large white population, to the north.

Moreover, she is farther away than Canada or Australia from any of the Great Powers. Her main problem is to keep her white population supreme in a land and a continent where in point of numbers the coloured population is greatly superior.

Railways and Waterways.

There are four main railway lines in South Africa, practically all on a narrow 3 ft. 6 in. gauge, all belonging, since 1910, to the South African Railways under the control of the Union Government.

These lines radiate from Johannesburg (population 284,000) the largest and wealthiest city in South Africa, to the sea.

(1) *Johannesburg to Cape Town.*—(Population, 207,000), through Potchefstroom, Kimberley (population, 39,000), De Aar, Beaufort West, Worcester and Paarl. This is the Royal Mail route from the diamond and gold fields to the Cape.

(2) A line running almost parallel to the former from *Johannesburg to Port Elizabeth* (population, 50,000), via Kroonstad, Winburg, Bloemfontein (capital of the Orange Free State, population 39,000), Springfontein, Graaf Reinet, and Uitenhage. From Port Elizabeth a line runs round the coast to Cape Town. From Springfontein there is a spur to East London (population, 35,000) by way of Bethulie, Molteno, Queenstown, and King William's Town.

(3) *Johannesburg to Durban* (population, 140,000), via Heidelburg, Standerton, Newcastle, Glencoe, Ladysmith, and Pietermaritzburg (the capital of Natal, population 35,000). Route (3) is joined to Route (2) by a line from Ladysmith to Kroonstad.

(4) *Durban to Lourenço Marques,* in Portuguese East Africa, via Pretoria (capital of the Transvaal, and administrative capital of the Union, population, 74,000), Middelburg, Belfast, and Barberton. A branch starting just south of Belfast links Route (3) through Ermelo and Piet Retief with Route (4) at Glencoe.

It will be seen from the map how the railways hug the naturally watered eastern side of South Africa.

Route (4) is not entirely satisfactory. The agreement of 1909, under which Portugal secured for Delagoa Bay (Lourenço Marques) half the trade of the Transvaal as an offset to the privilege of recruiting natives in Portuguese East Africa to work in the Rand mines, has fallen into abeyance, and has not been renewed. About 30,000 natives leave Mozambique each year to work in the Transvaal gold fields, but the Transvaal has always felt the need of a Transvaal outlet for her exports, possibly at Kosi Bay, just south of Portuguese territory.

Route (1)—the Royal Mail route—is the last lap of the British Cape to Cairo Railway. The actual line leaves Route (1) at Fourteen Streams, north of Kimberley, and passes through Vryburg and Mafeking along the eastern side of Bechuanaland to Buluwayo in Southern Rhodesia. From

this point it turns north-east to Victoria Falls, where it crosses the Zambesi, and then north across Northern Rhodesia to Bukama on the Congo River in Belgian Congo, which is its present terminus.

Waterways.

A plateau formation, such as exists in South Africa, does not make good navigable rivers. On the southern and eastern coasts the rivers are much too swift for navigation, and their mouths are choked with sand. On the plateau itself, the dry climate and the stratification of the rocks causes deep channels with an uncertain amount of water. Rivers in South Africa are thus valuable as natural boundaries, but not as means of communication.

On the other hand, the harbours are good. The best are as follows :—(1) Cape Town (Table Bay), sheltered from north-easterly gales by Table Mountain ; (2) False Bay, also behind Table Mountain, in the corner of which is the naval dockyard and base of Simon's Town ; (3) Durban, protected by a great sandpit, but a little shallow ; (4) Port Elizabeth on Algoa Bay, a little exposed to gales in summer ; (5) East London ; (6) Walfish Bay, in British South-West Africa.

CHAPTER XI.

The Commonwealth of Australia—The Dominion of New Zealand.

Australia.

Physical Features and Climate.

The surface of Australia consists mostly of plains and plateaux of great extent. In the east, however, a continuous range of highlands runs parallel to the coast from north to south, and bending westward with the coast, comes to an end in the south-west of the state of Victoria. As the whole range separates the low-lying coast valleys and plains from the great plains of the interior, it is known as the "Great Divide." In the south-east, in the Australian Alps, it reaches a height of 7,000 feet.

As the Tropic of Capricorn practically bisects the continent, the northern half lies within the tropics, while the southern half is not really cold in winter, though owing to the clear dryness of the atmosphere, which assists radiation, you may get an occasional frost in the southern plains.

On the other hand, apart from Tasmania, the summer temperature is high, the average shade temperature for January, except in the coastal regions of the south, south-east and south-west being over 80° Fahrenheit. In this month the altitude of the sun is at midday very great, as the earth is nearest the sun, and though northern Queensland is like Calcutta, and Tasmania like Kent, owing to the small difference of the length of the day in summer and winter, there are no great extremes of temperature, the variation even in the interior being only 31°, and on the coast often not more than 10°. On the west much of the plateau which rises to a height of 2,000 feet in the interior, is dotted with

salt swamps and sand dunes, where nothing will grow but the prickly spinifex. Its edge, especially on the shore of the Great Australian Bight, a harbourless shore of a thousand miles, is mostly steep to the sea.

In the north-west, however, except for Port Darwin, which lies on one of the finest harbours in Australia, it is fringed with tropical swamps ; on the west, where there is not desert there is valuable grazing land, and in the south-west there are forests and farms.

The central plains have three drainage areas—the tropical Gulf of Carpentaria in the north, the shallow depression of Lake Eyre in the centre, and the Riverina District. The first may prove suitable for stock. The second is poor dry scrubland, which can only exist on artesian wells. The third has scanty rainfall, but in the north vast stores of underground water are being tapped without much difficulty, and in the south are the upper waters of the Murray River.

The " Great Divide " has a great influence on Australian rainfall. The chief rainbearing winds of Australia blow more or less from the east. Consequently, while a good third of the country gets less than 10 inches, which is certainly not enough for ordinary farming, and barely enough for sheep, unless it can be supplemented from another source, the hot monsoon region of the north and the narrow eastern coast belt get over 40 inches. It is noticeable that the population of Australia is concentrated where there is a reasonable rainfall and a moderate temperature. It is disposed in a manner to correspond with the rainbelts. So nearly one-half is uninhabited, only one per cent. of the total area is cultivated. In a belt of country 100 miles wide live 80 per cent. of the people, the only considerable outliers being around Perth and Fremantle on the west coast.

Australia as a Recruiting Base.

With an area of just over 3 million square miles—2,400 miles at its greatest length, and 2,500 miles at its greatest breadth—about as large as Africa north of the equator, Australia had, at the census of 1921, a population of nearly 5½ million people.

The density of population for the whole Commonwealth is thus only 1·7 per square mile. This is abnormally small even compared with Canada, which is less than 3, but there are great portions of Australia that are not, and may never be, inhabited.

The density of population in the various states is as follows :—

	Population to Sq. Mile.
Victoria	17·0
Tasmania	8·0
New South Wales	7·0
South Australia	1·3
Queensland	1·2

while in Western Australia there are nearly three square miles for each person. Two thirds of the total population (3,650,000) live in New South Wales and Victoria, and there is an unfortunate tendency to concentrate in the large towns near the sites of the original settlements, and to engage in manufacturing or trade rather than in agriculture or sheep farming, on which the life of the Dominion must depend. It is estimated that in the third generation the original agricultural emigrant from Great Britain inevitably finds his way to the town.

This tendency is most marked in the capital towns of Australia, as the ensuing Table shows :—

State.	*Capital.*	*Percentage of Population of Capital to Population of State.*
New South Wales ...	Sydney	43
Queensland	Brisbane	28
South Australia ...	Adelaide	52
Tasmania	Hobart	25
Victoria	Melbourne	51
Western Australia ...	Perth	47

40 per cent. of the population of the continent live in these six principal cities.

While, however, the people of Australia will flock to the towns, they are essentially of British origin. Ninety per cent. of the prosperous freeholding farmers are British agricultural labourers, are their sons, or are descended from original colonists of British stock.

Outside Papua, which has an estimated native population of 200,000, and which Australia governs by mandate from the League of Nations, and the territory of New Guinea with probably nearly 450,000 natives, Australia has not and will not have, a native problem.

The aborigines or bushmen of primitive type are rapidly decreasing, exist now, to the number of not more than 20,000, only in Queensland and Western Australia, and do not respond to civilization.

Apart from them there are a few Chinese, whose further immigration is prohibited, and some Kanakas or natives from the small Pacific Islands, originally brought in to work on the sugar plantations of Queensland, practically all of whom have been deported. Australia is predominantly "white," and is determined to remain so. Her "dictation" test for immigrants excludes those she does not desire, and of all the Dominions she has taken most advantage of the Overseas Settlement Act of 1921.

This determination of hers, which is in no way confined to any political party, is due to her desire for racial preservation. The tropical part of the rainy region north of the railway from Rockhampton to Longreach, as far as Cambridge Gulf, west of Port Darwin, is regarded as too hot and moist to support anyone but the "tropical white man." Such an individual has not yet been born, but it does not modify the Australian attitude. Australia would rather see her northern territory, with its area of over half a million square miles, and its present population of 4,000 whites (131 square miles to each person) empty, than face a coloured problem. She is too close to the large coloured population of the East Indies and Asia not to have fear of the possibility of the effect of coloured immigrants upon her social, political, and economic life. As Dr. Vaughan Cornish says, "If Australia became a country of white overseers and foremen with coloured peasantry and factory hands, this might not lower the remuneration of the whites, but it would ruin the prospects of the British race in Australia, and it would make the problem of government far more difficult than with a homogeneous population."

So long as Australia provides a principal area for the development of the British race, and in proportion to her population, is the best recruiting base of the Commonwealth, so long will the white Australia policy prevail.

Australia as a Technical Base.

In 1921 the exports of Australia into the United Kingdom, in order of value, were :—

	Value.
Foodstuffs.	
Wheat, including wheatmeal and flour	£19,400,000
Dairy products	£12,000,000
Meat	£5,800,000
Oleo-margarine	£159,000
Raw Materials.	
Wool	£18,900,000
Copper	£1,300,000
Lead	£320,000
Manufactured Articles.	
Leather	£346,000

(1) **Wheat.**—When it is remembered that of the three million square miles in Australia not more than 20,000 are as yet given up to agriculture, the present wheat production of Australia may well increase. There are, however, considerable difficulties in producing wheat and in transhipping it to England. Precarious rainfall, necessary clearance of scrub, occupation of arable land by large sheep runs, the comparatively small average acre production—only 11 bushels, as compared with the 21 of Canada—the prevalence of " rust " in the moist fertile valleys of the east, are all barriers to production, while the long sea voyage to England entails high freight and insurance charges.

On the other hand, the cheapness of land, the excellent quality of the grain, the proximity of the wheatfields to the spur railways—90 per cent. of the wheat produced is grown within 16 miles of a railway line—and to the sea, the use of irrigation ditches and the practice of " dry farming," cheap production and economical harvesting, and last, not least, the arrival of the crop in England in April, when supplies from Canada and the United States are being exhausted, gives Australian wheat a pull in the home market, so that the import is greater than that of Canada, and only second to that of the United States. Moveover, countries in the Far East—

Java, the Philippines, Japan, and the Straits Settlements, South America, and in Chile and Peru, all look to Australia for wheat.

(2) **Wool.**—Australia has more sheep and produces better wool than any other country in the world. Nearly half the wool goes to the United Kingdom, and most of the rest to Western Europe, India, and Japan. In 1921 England imported 44 per cent., in 1923 40 per cent of her wool from Australia.

(3) **Dairy Products.**—Australia specializes in butter for export rather than cheese, as it is less bulky and more valuable and is not affected by being frozen.

(4) **Meat.**—Australia's export of frozen meat includes not only beef, mutton, and lamb, but rabbits, and has thus converted a veritable curse into an asset. Apart from what she sends the United Kingdom, Australia entirely supplies the Philippine Islands, through Port Darwin, with fresh meat.

(5) **Minerals.**—Australia has enormous mineral wealth, which, except for gold, has been little developed. Apart from gold (Queensland), copper (Queensland and South Australia), and lead, there is a rich coal area near Sydney in New South Wales (Newcastle). There is also a great field of brown coal in the neighbourhood of Melbourne which is being steadily worked.

Australia also has no lack of timber, and a new fruit industry with great possibilities is springing up upon the Murray River.

The chief imports of Australia from the United Kingdom in 1921 were as follows :—

	Value.
Apparel	£1,400,000
Arms and ammunition	£471,000
Books	£768,000
Chemicals, etc.	£1,577,000
Chinaware	£693,000
Cotton piece goods	£8,376,000
Cotton thread	£405,000
Electrical machinery	£799,000
Iron and steel manufactures	£6,000,000
Paper	£1,320,000

Australia, however, is rapidly developing her own manufactures, especially in the older and larger towns. About 7 per cent. of her total population work in factories, and an Australian buys and consumes more than a European.

Railways and Waterways.

Owing to the unproductive nature of most of Australia, settlement is confined to the coastal strip, and has only recently begun to spread over into the dry interior district. Consequently, except in the populous south-east corner (1), most of the railway lines are "cockspur" lines, simply connecting up a small mining or farming area with a seaport. (2) the independence of the states, each with its own railway system and its own gauge, has militated against a general linking scheme for the Commonwealth; (3) railway construction through the Great Divide is not easy—between Melbourne and Sydney the line goes behind the mountains, and from Sydney to Brisbane, the railway, once it has climbed up the Hunter Valley to the Plateau, remains on the top till it reaches the Brisbane River. The main lines of the states, all of which own and operate their own lines, are as follows :—

A. **Queensland.**—Mileage 5,725 miles. Gauge, 3 ft. 6 ins. The railways are divided into three divisional systems—Southern, Central, and Northern.

(1) Brisbane to Cunnamulla via Toowoomba, and along the New South Wales border across the Darling Downs, with a branch to Dirranbandi. Both these lines have a large number of small branches serving rich agricultural and pastoral districts.

(2) Brisbane to Rockhampton, along the coast (with branches).

(3) Rockhampton to Longreach.

(4) Rockhampton to Mackay and Townsville (this feeds the sugar plantations and the Mount Morgan gold mine).

(5) Townsville to Cloncurry via Charters Towers.

(6) Townsville to Cairns.

B. **New South Wales.**—Mileage, 5,043 miles. Gauge, 4 ft. 8½ ins.

(1) Newcastle to the Queensland border via Maitland, Armidale, and Tenterfield.

(2) Newcastle to Port Macquarie.

(3) Sydney to Newcastle.

(4) Sydney to Bourke, the collecting centre for wool, with branches to Cobar and the Lachlan River.

(5) Sydney to Albury on the north side of the Murray River, with a branch to the federal capital of Canberra.

(6) Sydney to Port Kembla along the coast.

C. **Victoria.**—Mileage, 4,274 miles. Gauge, 5 ft. 3 in.

(1) Melbourne through Gippsland to Bairnsdale.

(2) Melbourne across the Great Divide to Wodonga, opposite Albury (B 5).

(3) Melbourne to Bendigo and Echuca on the Murray River, with a connection across the border into New South Wales.

(4) Melbourne to Mildura on the Lower Murray, the centre of the great fruit-raising area.

(5) Melbourne through Ballarat to the South Australian border.

(6) Melbourne to Geelong and Port Fairy.

D. **South Australia.**—Mileage, 2,333 miles. Gauge, 5 ft. 3 in.

(1) Adelaide to Serviceton.

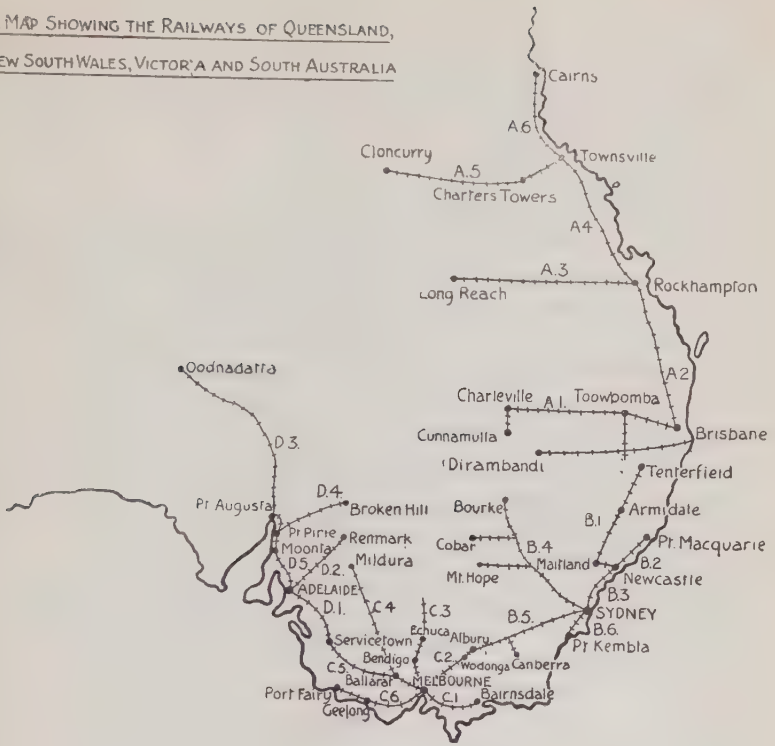
(2) Adelaide to the Murray River.

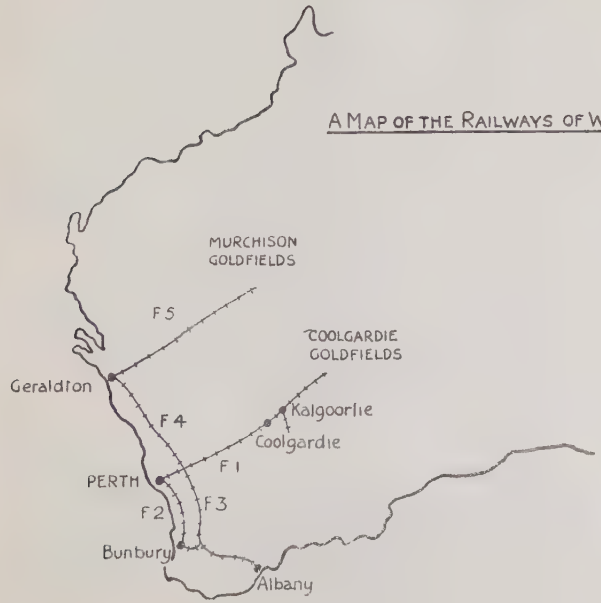
(3) Adelaide to Port Augusta and on to Oodnadatta.

(4) Port Pirie to Broken Hill (New South Wales).

(5) Port Pirie to Wallaroo and Moonta (copper mines).

E. **Tasmania.**—One line from Hobart in the South to Launceston in the north and thence along the north coast to Macquarie.


A MAP SHOWING THE RAILWAYS OF QUEENSLAND,
NEW SOUTH WALES, VICTORIA AND SOUTH AUSTRALIA
Cairns
A.6
Cloncurry
Townsville
A.5
Charters Towers
A.4
A.3
Long Reach
Rockhampton
A.2
Oodnadatta
Charleville
A.1.
Toowoomba
D.3.
Cunnamulla
Brisbane
Dirambandi
Tenterfield
D.4.
Pr. Augusta
Broken Hill
Bourke
B.1
Armidale
Pr. Pirie
Moonta
Renmark
Cobar
B.4
Pr. Macquarie
D.5.
D.2.
Mildura
Maitland
B.2
Mt. Hope
Newcastle
ADELAIDE
B.3
D.1.
C.4
C.3
Echuca
Albury
B.5.
SYDNEY
Servicetown
B.6.
Bendigo
C.2.
Wodonga
Canberra
Pr. Kembla
C.5.
Ballarat
MELBOURNE
Port Fairy
C.6.
C.1.
Bairnsdale
Geelong


A MAP OF THE RAILWAYS OF WEST AUSTRALIA
MURCHISON
GOLDFIELDS
F.5
COOLGARDIE
GOLDFIELDS
Geraldton
Kalgoorlie
F.4
Coolgardie
F.1
PERTH
F.2
F.3
Bunbury
Albany

F. **Western Australia.**—Gauge, 3 ft. 6 in.

(1) Perth up the Swan River to the gold fields of Coolgardie.
(2) Perth to Bunbury.
(3) Perth to Albany.
(4) Perth to Geraldton.
(5) Geraldton to Murchison gold fields.

The trans-Australian Federal railway—of the same gauge (4 ft. 8½ in.) throughout—runs from Adelaide to Perth, and will eventually cross the continent from south to north, from Adelaide to Palmerston. A scheme for the unification of the gauges is not being proceeded with, but lines are to be built from Port Augusta in South Australia through Hay and Kyogle in New South Wales to Brisbane, while at the same time the Perth–Kalgoorlie line is being converted so as to provide a straight run across the continent from east to west without a change.

Australia has many harbours on all her coasts. On the north is Port Darwin, one of her finest harbours; on the west, Fremantle, on the Swan River estuary, the chief port of Western Australia; on the south there are good harbours, especially on Spencer and St. Vincent Gulfs; and on the east not only a number of natural harbours, including Port Jackson, perhaps the best in the world, deep watered, sheltered, accessible at all states of the tide, but the protection of the Great Barrier Reef, providing a smooth water anchorage between 10 and 100 miles broad, broken only opposite the mouths of the large rivers.

The great rivers of Australia, the Murray, the Darling, and the Murrumbidgee—really one—are often made useless because of drought, and the short coastal rivers are too swift and too choked by sand bars near their mouths.

The Murray, 1,600 miles in length, is navigable to Echuca, 500 miles up; the Darling (1,760 miles) to Walgeth at 800 miles, and the Murrumbidgee to Hay, 100 miles from the point at which it joins the Murray.

The Defence of Australia.

Australia provides for her defence by her "White Australia Policy." Her position in the Pacific is very difficult. Port Darwin—the port of the Australian north—is only 3,500 miles from Yokohama and Calcutta, only 2,500 miles from

Canton in southern China, only 1,800 miles from Manila, only 1,500 miles from Batavia, the capital of the Dutch East Indies. The Japanese outnumber the Australians by 10 to 1, the peoples of China are in the proportion 80 to 1, the peoples of India of 60 to 1. By sheer numbers one of these nations might beat her, a combination would overwhelm her. So Australia has resolved to keep herself white, and to this end has—as a precautionary measure—instituted a coast patrol to prevent "squatting" on her northern coast, and worked out a system of universal military training for her boys and young men.

But in any scheme of defence for Australia, there are obvious weaknesses inherent in the political situation. When Australia, as we saw in Chapter I, became a self-governing Dominion, she brought together six independent states. Nowhere has this independence been so much to the detriment of Australia as in the present railway situation. Leaving the island state of Tasmania out of the picture, the railway gauges of the five continental states are as follows :—

New South Wales	3 ft. 6 ins. and 4 ft. 8½ ins.
Victoria	5 ft. 3 ins.
South Australia	
Queensland	3 ft. 6 ins.
Western Australia	

This entails transference every time troops pass from New South Wales to Victoria, or from South Australia to Queensland. Unification is, of course, possible, but before the war the estimated cost of converting all state railways to a uniform gauge of 5 ft. 3 ins. was £51 millions, and to a 4 ft. 8½-in. gauge £37 millions. Now both schemes have temporarily been abandoned, and the Commonwealth (Trans-Australian) Railways have adopted the 4 ft. 8½-in. gauge.

Another weakness in Australia is the absence of lateral railways linking up the termini of the spurs that run in from the coast.

If, for instance, Sydney was attacked, it would be most difficult to transport reinforcements with any speed, from, say, Cloncurry or Longreach.

Primarily, of course, the defence of Australia is a naval question, but the land army must always keep the defended harbours for the fleet.

The new line along the southern coast and the future Port Augusta—Hay—Brisbane connection will aid this, but there is still needed a north and south railway to provide lateral communication for the reserves of New South Wales and Queensland.

From the naval point of view, Australia must be defended from Singapore, which is an essential factor in the Pacific problem. If, however, a hostile fleet broke through the long line of defence—from Fremantle to Townsville is approximately 3,000 miles—the obvious points of attack are the dangerously exposed harbours of Port Macquarie, Sydney, and Newcastle on the east coast. Melbourne and Adelaide lie well up their estuaries, Perth and Port Darwin are too far from the industrial and mining areas.

New Zealand.

Physical Features and Climate.

New Zealand consists of two main islands, about five-sixths the area of the United Kingdom, together with Stewart Island and a number of small groups in the Pacific. The two larger islands, the North Island and the South Island, are separated from one another by a narrow channel known as the Cook Strait. Both islands have a mountainous backbone, and only the South Island range has been pierced (1923) by a railway tunnel from east to west through the Otira gorge.

As neither island is anywhere more than 200 miles wide, no place is more than 70 miles from the sea, and the latitude is well within the temperate zone, the climate is equable and mild.

Even over its length of 1,000 miles there is surprisingly little variation in the mean January (midsummer) and July (midwinter) temperature of Auckland in the north (67° and 51°) and Invercargill in the south (57° and 41°). This small variation makes the climate congenial both to man and beast.

Further, both islands get a well-distributed annual rainfall, varying between 40 and 60 inches, and there is little, if any, drought. It rains a little too much for wheat, and it is not quite hot enough for good wine grapes. There is a little too much rain, though not too much to produce fine timber, on the west coast of the South Island, which lies well within the Roaring Forties (at Hokitika and elsewhere there is an annual rainfall of over 100 inches), but there is just sufficient on the Canterbury Plains on the other side and under the shelter of the Southern Alps to provide excellent sheep pasturage.

New Zealand as a Recruiting Base.

At the census of 1921, New Zealand had a population a little in excess of 1,200,000. As her area is just over 100,000 square miles, her population density is 12 to the square mile. She can, therefore, easily carry a much larger population, estimated at 3,500,000. Moreover, she is well situated, as her people have not, as in Australia, concentrated in the towns of which she has four of any size, the largest, Auckland, only having 8 per cent. of the whole population. Most of the so-called towns of New Zealand are really only large villages.

The population includes 52,000 Maoris and about 30,000 Chinese. The Maori is a fine type of native, loyal, and a good fighter. He is specially represented by four Maori members in the Legislative Assembly, and three members in the Legislative Council. In numbers he remains almost constant. On the other hand, the heavy head tax on Chinese emigrants—£100 per head—has greatly lessened and keeps down their number.

New Zealand as a Technical Base.

The total trade per head of the population is greater than that of any other unit in the Commonwealth, and no town of any size, except Christchurch, is not a seaport. The early emigrants to New Zealand, who were all of British origin, wished to obtain their manufactured goods from the old country, and, naturally, settled on any lands near the

sea which were fertile enough to produce food supplies which they could send in exchange.

The chief exports of New Zealand in order of value were, in 1921 :—

Foodstuffs.	*Value.*	*Percentage of Exports.*
Butter and Cheese	£10,900,000	20
Frozen meat	£9,600,000	18
Preserved meats	£1,300,000	2·5
Raw Materials.		
Wool	£19,500,000	36
Hides, skins, and pelts	£3,400,000	6
Tallow	£2,700,000	5
Gold	£1,300,000	2·5

The bulk of these articles (nearly 80 per cent.) go to the United Kingdom, and a great proportion of the rest to Australia.

The United Kingdom and Australia also supply New Zealand with most of her imports, the high protective tariff on manufactured articles, coupled with British preference and a very strong Imperial sentiment, keeping other producers out of the New Zealand market.

Railways and Waterways.

New Zealand has nearly 3,000 miles of railway, practically all owned and operated by the Government. These lines cross the coastal plains in both islands, and send out short spurs into the interior.

The main lines are :—

A. In the North Island.

(1) Wellington to New Plymouth on the west coast.

(2) Wellington to Napier on the east coast.

(3) Wellington to Auckland with branches to the Hot Lakes District and Thames.

B. In the South Island.

(1) Christchurch to Invercargill via Timaru, Oomaru, and Dunedin, with branches along the Clutha River and into Southland.

(2) Christchurch to the west coast ports and mining districts via the Otira Tunnel.

(3) Nelson to Kumara.

New Zealand has many excellent seaports, small and large, of which the five chief in order of trade are Wellington, Auckland, Lyttleton (8 miles from Christchurch), Dunedin and the Bluff (17 miles from Invercargill).

Defence of New Zealand.

Like Australia, and even more so, because of her greater distance from the Mother Country (12,000 miles), New Zealand relies mainly on naval defence.

Since 1870, when after the Maori War the Royal Irish sailed away from Australia, New Zealand has been responsible for her own internal defence, leaving the responsibility of defence at sea to the British Navy, which she has supported

by a contribution to the squadron in the south seas, partly in money and partly in kind. The money gift was in 1908 raised to £100,000, and, in 1909 a battle cruiser was presented by the Dominion to become the " property of His Majesty the King in respect of the Government of the United Kingdom, free from any control or authority exercisable by the Parliament or Executive Government of New Zealand." This quotation from the Naval Defence Act illustrates the unconditional belief of New Zealand in the one sea, one navy doctrine of the Admiralty, though the increased naval pressure of Germany led, in 1913, to the removal of the *New Zealand* to other waters, and to the creation of a Dominion naval service, available—both as to personnel and material—in time of war for service in any part of the Empire.

Moreover, by 1914, New Zealand, which like Australia, had wholeheartedly adopted the cadet system, was also in the possession of a live and growing citizen army " well equipped, well armed, and with human material second to none in the world."

CHAPTER XII.

India.

India is a peninsula in the centre of southern Asia, half-way between Australia and England, half-way between Aden and Singapore.

India, as defined by Parliament, includes all that part of the peninsula which is directly or indirectly under British law or protection. In a broader sense, it includes certain countries, such as Nepal, which are beyond that area but which have a British agent. British India, in a narrower connotation, does not include the native states.

The area of *India* is roughly 1,093,000 square miles, or eleven times as large as Great Britian. This, however, does not convey very much unless we grasp the great distances that separate seaports and military centres.

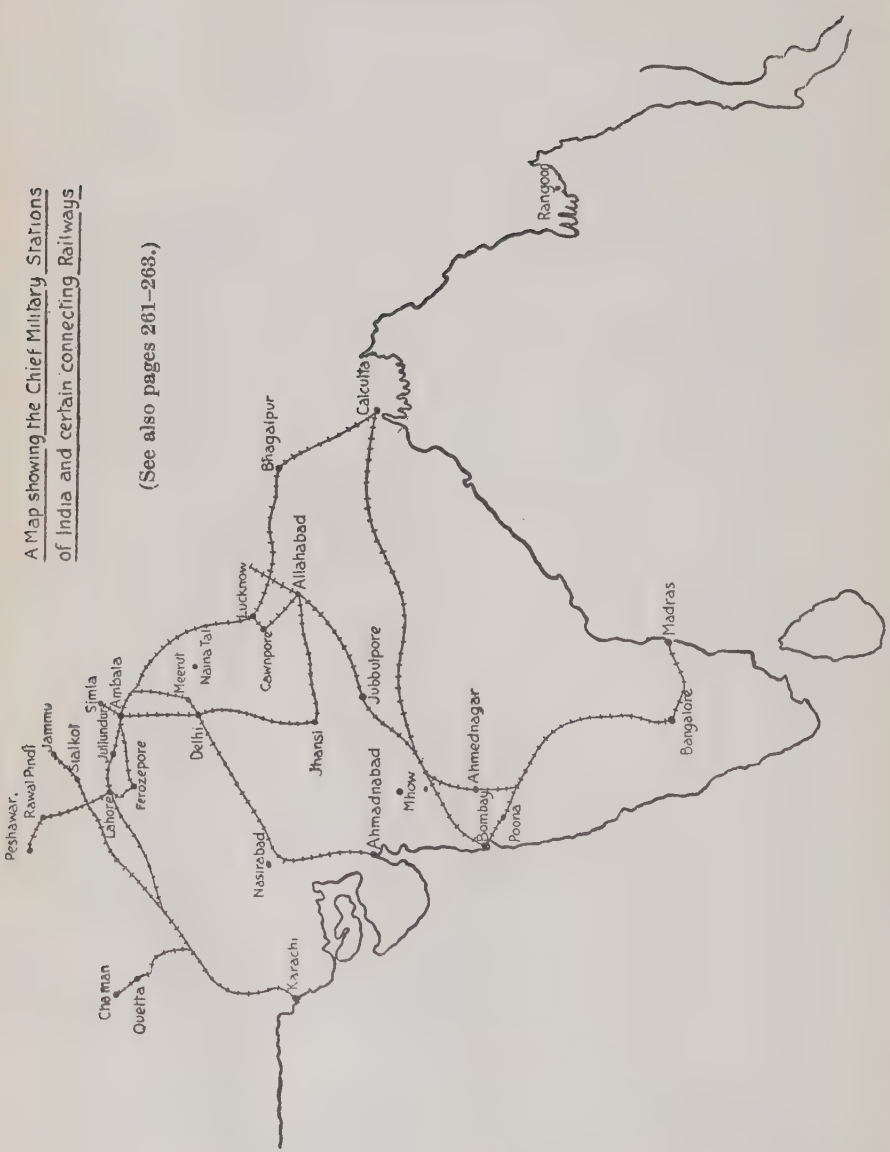
The landing place of the soldier is usually Bombay, 900 miles from Colombo, and 1,600 miles from Aden. Bombay is in the Southern Command, and only 100 miles from Poona, its Headquarters. But Burma is also an independent district in the same Command, and the newcomer's journey may thus continue to Rangoon, which, via Colombo and Calcutta, is another 2,800 miles farther on. Even within the Command itself Madras and Bangalore, as the crow flies—and you do not travel like the crow in India—are over 600 miles apart, almost as far as from Land's End to John o' Groats.

Going outside the Command, from Bombay to Calcutta in the Eastern Command, still flying like the crow, is 1,200 miles. From Calcutta to Peshawar, in the Northern Command, 1,200 miles.

Starting again from Bombay, Karachi, the Headquarters of the Western Command, is 700 miles by sea, and Quetta a further 400 miles north, or 1,100 miles in all, and we are still 100 miles short of Chaman.

A Map showing the Chief Military Stations of India and certain connecting Railways

(See also pages 261–263.)



Physical Features and Climate.

India may be divided into six distinct physical regions.

(1) The mountain wall of the Himalayas.

(2) The mountain region of Baluchistan and the north-west frontier.

(3) The parallel mountain ridges and valleys of Burma.

(4) The plain of the Indus and the Ganges.

(5) The Deccan Plateau.

(6) The Coastal Plains.

As troops stationed in India may serve in five of these regions, before describing the physical features and climate of each, it may be as well to show in what regions the chief stations in India lie.

In December, 1922, British troops were stationed all over India, including the following places :—

Physical Regions.	*Station.*	*Command.*
(2)	Peshawar	Northern.
	Lundi Kotal	Northern.
	Nowshera	Northern.
	Parachinar	Northern.
	Ladha (Waziristan)	Western.
	Quetta	Western
	Naini Tal	H.Q., Eastern.
(3)	Maymyo	Burma.
	Rangoon	Burma.
(4)	Rawal Pindi	Northern.
	Lahore	Northern.
	Sialkot	Northern.
	Ferozepore	Northern.
	Jullundur	Northern.
	Karachi (Sind-Rajputana)	H.Q., Western.
	Nasirabad (Bengal)	Western.
	Meerut (United Provinces)	Eastern.
	Delhi	Eastern.
	Lucknow	Eastern.
	Calcutta	Eastern.
	Allahabad	Eastern.
	Murree	H.Q., Northern.
(5)	Poona	H.Q., Southern.
	Mhow	Southern.
	Jhansi	Southern.
	Jubbulpore	Southern.
	Ahmednagar	Southern.
(6)	Bombay	Southern.

This shows that even within a Command there is no similarity of climate.

(1) The Mountain Wall of the Himalayas.—The Himalayas—" abode of snow "—are a natural barrier 1,500 miles long, 150 miles wide, and 4 miles high (Mount Everest, the highest

peak in the world, is nearly 6), separating the plateau of Central Asia from the plains of India. The whole range is an obstacle to hostile invasion, and the only traffic over its high passes is carried by yaks. It is from these mountains that the great rivers of the Ganges and the Brahmaputra flow.

(2) **The Mountain Region of Baluchistan and the North-West Frontier.**—This is a region of high arid mountain ridges with tangled valleys inhabited by fierce independent tribesmen, crossed by several relatively low passes to Persia and Afghanistan. It is the region of the passes through which India has always been invaded from Central and South-Western Asia.

(3) **The Parallel Mountain Ridges and Valleys of Burma.**—The heavy rainfall of this region covers the mountains with forests of valuable timber, and feeds the Irawady and the Salwen Rivers.

(4) **The Plain of the Indus and the Ganges.**—This consists of a depression between region (2) and region (5), the Deccan Plateau. Its two great rivers provide a wonderful water supply, and it contains almost half the population of India, to whom these rivers are sacred. The roads are bad, and either very dusty or very muddy, according to the season, but there is a network of canals and railways to supplement the rivers. From Karachi to Calcutta, 1,500 miles, there is no hill above 1,000 feet in height.

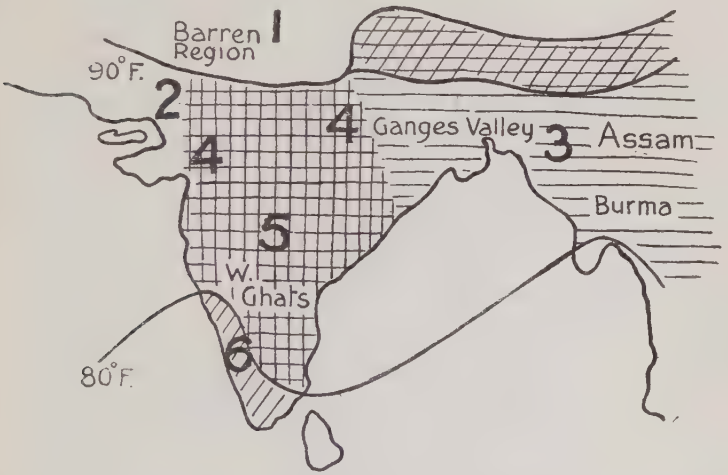
(5) **The Deccan Plateau.**—The Deccan Plateau.—2000 feet on the average—as high as 9,000 feet in the Nilgiris of the extreme south, slopes from east to west. On both sides it descends to the sea in steps or " ghats," low and broken on the eastern, steep on the western side. Down from the plateau flow its rivers in deep gorges, useless for navigation.

(6) **The Coastal Plains.**—Between the western " ghats " and the sea the plains are very narrow, but on the east they broaden out, and the irrigated river deltas are fertile and populous.

In the lowlands of India the temperature is always high. Moreover, it is so intensely hot in summer in the plains that Europeans have to retire to Simla, Darjeeling, or Poona, in the hills.

Hot climate needs the lightest possible clothing and great attention to physical fitness.

India lies in the region of the monsoons, which determine her rainfall. In summer—from June to October—the south-west monsoon deposits downpours of rain beyond the western "ghats" and the mountains of Burma and Assam, including the Ganges valley, though it misses the hot lowlands of the Indus valley and the Thar desert. It is in this region that a record temperature for India has been observed.



In winter the north-east monsoon brings rain only to the south-east corner of the eastern "ghats" (Madras), so while northern India remains dry and cool from November to February, much of the country, exclusive of the hills, especially that part south of a line drawn from Karachi to Calcutta—with a mean winter temperature of between 70° and 80° Fahrenheit—is dry and parched.

Moreover, if the wet monsoon fails, famine and plague come in the train of its failure, and often the situation is saved—especially in the Madras Presidency—only by the great irrigation "tanks."

India as a Recruiting Base.

Before we deal with the question of recruiting in India, we must first decide what we mean by *India*. "The first and most essential thing to learn about India is that there

is not, and never was an India, or even any country of India possessing according to European ideas any sort of unity, physical, political, social, or religious." Let us examine this remarkable statement in detail. In the first place we must distinguish between what is known as British India and India proper.

India proper, as we have already said, includes all that part of the Indian peninsula which is directly or indirectly under British rule or protection. In a popular sense it may also include such states as Nepal or Baluchistan, whose political and foreign relations are a concern of the Government of India. British India is that part of India outside the native states included within the administrations of Madras, Bombay, Bengal, the United Provinces of Agra and Oudh, the Punjab, Burma, Bihar and Orissa, the Central Provinces and Berar, Assam, the North-West Frontier Province, Ajmer-Merwara, Coorg, British Baluchistan, Delhi, and the Andaman and Nicobar Islands. To the majority of the Indian peoples, especially in the hot crowded south, India, if they ever trouble to think of it at all, means the Hindustan of the Indus valley, or even their own local district.

We may now consider the racial and religious diversity of India. The peoples of India are divided into many races with at least 22 languages.

(1) There are 60 million short, dark Dravidian aborigines with long curly hair and broad depressed noses, typically represented by the thieving half-civilized Bhils of Rajputana and the coolies of the Southern Deccan.

(2) There are 232 million descendants of the Aryans from Persia and south-west India, who came over after 2,000 B.C. in successive waves of invasion, and settled as farmers, first in the Indus and then in the Ganges valley ; tall, well-built, of light complexion and wavy hair, the Rajputs of the Deccan, the Sikhs of the Punjab.

(3) There are the Mongolians of Burma, with broad, flat, yellow faces, slanting eyes, prominent cheekbones, and short black hair.

In the Upper Ganges valley Aryans and Dravidians are mixed. Thus, the Bengali is a Dravidian-Mongol, the

people of the western Deccan have got a dash of Tartar in their Dravidian blood, the tribesmen of the North-West Frontier seem to be half Turk and half Persian.

Of the languages the most common are the following :—

Language spoken by.	*People, in Millions.*
Hindu	82
Bengali	48
Telugu	23
Marathi	20
Tamil	18
Punjabi	16

There is also the great diversity of religion, out of which arises the great Hindu-Mohammedan problem. When the Aryan migration took place, numbers of nomads came through the passes of the north-west and settled in the Ganges valley, by nature the great agricultural storehouse of the peninsula. Here they developed their original culture, here the Hindu religion, with its belief in the transmigration of souls and its rigid caste system, took its present form, here Buddhism was developed. Here, also, local patriotism received a religious background in the attachment of sanctity to every significant geographical feature in the Ganges basin. Almost all the peninsula was governed from Patna between 500 B.C. and A.D. 500, the period that marks the consolidation of Hindu power, and the spread of the Hindu rule of faith.

To-day the majority of Hindus live in the provinces of Bihar and Orissa, Bombay, the Central Provinces, and Madras, where they constitute respectively 82, 76, 83, and 89 per cent. of the population. In all India they number 218 millions, out of a total population of 319 millions, or between 65 and 70 per cent.

We have already seen that Buddhism developed from Hinduism in the Ganges valley—almost side by side with the Aryan invasion. Buddhism, however, has little or no hold in India proper, save in the Punjab states, where its adherents number nearly 800,000. On the other hand, it is the nominal religion of $10\frac{1}{4}$ million Burmese.

The religion of the Sikhs is even in a greater degree a legitimate development of Hinduism, and the relation between the Hindu and the Sikh pure and simple, is so close

as to make distinction even within a family impossible. The principal home of the Sikhs is in the Amritsar division of the Punjab. 2,100,000 of the 3,000,000 Sikhs of India make their home in the Punjab.

The Mohammedans of India number about 67,000,000. The Mohammedan invasion of India began in the eighth century A.D. with the coming of the Turks, Arabs, and Afghans, and Mohammedan rule was firmly stabilized with the establishment of the Mogul Empire in 1530.

The Mohammedans of India acted as the spearhead of the religious invasion of the East on its south-eastern frontier. Their final capital was Delhi, near the western entrance to the Ganges valley, and it is in north-western India, in Bengal and the Punjab that Mohammedanism is strongest to-day.

The choice of the Delhi region was natural. The original home of the invader was a dry belt characterized by the vegetation of the steppes, with patches of irrigated land and occasional forest well-fitted for grazing.

In the Indus basin was also a region of scanty rainfall, useful for the same purpose. The nomadic life of the herdsman, to which they were accustomed, could be carried on with little interruption in a country of great extent, well adapted to their own mobility and to prospective recruiting. The itinerant merchant or horsebreeder is still the typical Moslem, though modern civilization has driven many Mohammedans into the towns.

Thus between the Hindus and the Mohammedans lies a barrier not only of religion but of occupation, and no individual has yet been able to solve the problem of this diversity.

The 319,000,000 people of India are thus of no single race, speak no one language, follow no one religion, have no general public opinion. If the problem of government is difficult, the problem of recruiting is not less so.

The military forces of India consist of two parts. Such regiments of the British Army as may, in due course of time, be stationed in India, and the Indian Army, recruited in India.

The Indian Army is not drawn from every portion of India, for certain of the Indians never have made, and never will make, satisfactory soldiers.

The main sources of recruiting are :—

(1) *The Punjab.*—Between the Punjab and the Jhelum Rivers, for Sikhs, the most valuable and important portion of the Indian Army. The Sikhs are not a separate race, but a military caste professing a type of Hinduism.

(2) *The Bombay Presidency and the Deccan.*—For the Marathas, who have been called the " Cossacks of India."

(3) *Bengal and the Punjab.*—For the Rajputs, the professional military caste of India. The Rajputs are privileged landowners, but cannot hold the plough.

(4) *The Punjab, Rajputana, and the United Provinces.*—For the Jats.

(5) *The Punjab between the Rivers Sutlej and Chenab.*—For the Dogras or " Rajput Highlanders."

(6) *Baluchistan.*—For the Moslem Baluchis.

(7) *The North-West Frontier.*—For the Pathans, of mixed Moslem origin.

(8) *The Punjab.*—For mixed Moslems such as the Ghakkars, Awans, Gujars, Tiwanas, etc.

(9) *Nepal.*—For the Gurkhas and Gharwalis.

The strength of the regular Indian Army in 1913 was over 160,000 ; it is now slightly less.

India as a Technical Base.

The great industry of India is agriculture ; two-thirds of the total population of the country are dependent on farming. Moreover, there are only 75 towns with a population over 50,000, and nine-tenths of the people live in villages.

The remarkable thing about Indian farming is the smallness of the farms. Thus, for instance, though Bengal is essentially an agricultural province, the density of population, 578 to the square mile, is as great as that of the West Riding of Yorkshire, owing to the fact that the average size of the holding of the small farmers is under five acres.

The chief export, as it is the chief food grain of India, is rice. It is grown chiefly in the Ganges valley, in the Deccan, and in Burma. Millet, the second great food staple of the Indian people, is not exported. India also grows wheat and tea, sending most of its tea to the United Kingdom, which, in 1921, received 61 per cent. of its tea from India, as against 29 per cent. from China.

The other chief exports of India also reflect the agricultural nature of the country. They are cotton, jute, oil seeds, wool, and teak. Great Britain does not take as much Indian cotton as it used to. Much more is taken by the Indian mills, and much is now exported to China and Japan. In 1921 for 8 centals of cotton that came to the Lancashire mills from the United States, $2\frac{1}{4}$ centals came from Egypt, and less than a quarter of a cental from India.

Practically all Great Britain's jute—for the manufacture of sacking—comes from India, as does almost all her teak.

As India uses her own cotton in her own mills, so in the neighbourhood of Calcutta, where the raw material—coal from the Raniganj coal field—and cheap labour are all in close proximity, she makes up her own jute into gunny bags for export, and competes with Dundee. Undressed hides and skins, and some small amount of cotton goods are also imported into Great Britain from India.

In exchange, India receives cotton yarn and cotton piece goods in large quantity. As this import competes in the Indian market with Indian-made goods, a measure of local protection has been mooted, and there is a strong national movement in favour of home production for home consumption (" swadeshi "). Even without protection the value of the British import of cotton goods has decreased steadily in the last 20 years, though there was a slight increase in 1921 over previous years.

Other imports from the United Kingdom include hardware and machinery, especially for use in the Bombay cotton factories.

The general decline in British trade with India is shown by the following figures :—

	1902.	1913.	1918.	1921.
Value of imports (millions) from Great Britain ...	£40	£36	£29	£33

India, however, is still Britain's best customer, and in 1919-1921 bought as much from the Mother Country as the three Dominions of Canada, South Africa, and Australia combined.

India has great mineral possibilities, and, owing to the climate, few miners. The most essential of its minerals are coal, petroleum, manganese, mica, iron, tin ore, and saltpetre.

The most valuable coalfield is that of Raniganj, a semi-circular field on the headwaters of streams flowing into the Ganges, 100 miles north-west of Calcutta. The weakness of the Indian coal and iron deposits is that in no district have coal, iron ore, and limestone been found together.

Manganese ore, which is used in the manufacture of glass, is found near Nagpur in the Deccan ; mica, a substitute for glass, in Bengal ; saltpetre, a constituent of gunpowder, in northern Bengal, and tin ore in the mountains of southern Burma.

The richest oil wells of India are in Central Burma, though there are small deposits in Assam and the Punjab.

Railways and Waterways.

Railways in India were built for three reasons :—

(1) Political : To bring India under central control.

(2) Economic : (*a*) To develop trade, (*b*) to counteract the devastation of famines.

(3) Military : To protect the frontiers from invasion.

Most of the railways are constructed on a 5 ft. 6 in. gauge, but there is also the metre gauge, which is a drawback to the interchange of traffic. There are five chief trunk lines.

(1) The Bengal or East Indian Railway.—(*a*) Calcutta (Hourah) to Ambala in the Punjab, (*b*) Ambala to Simla.

Along this line are the military stations of Calcutta, Allahabad, Delhi (Eastern Command), and Ambala (Northern Command), between which places the distances are as shown in the following Table :—

From.	*To Calcutta.*	*To Allahabad.*	*To Delhi.*	*To Ambala.*
Calcutta	—	570	960	1080
Allahabad ...	570	—	390	510
Delhi	960	390	—	120
Ambala	1080	510	120	—

It is approximately 50 miles over the hills from Ambala to Simla.

(2) The North-Western Railway.—This is a continuation of the East Indian Railway across the Punjab, and links the Punjab and the North-West Frontier Province with the port of Karachi.

The main line runs from Ambala through Lahore and Rawal Pindi to Peshawar, guarding the Khyber Pass, all in the Northern Command, and beyond Peshawar to Fort Jamrud at its entrance.

There are two branches :—

(*a*) An economic line from Lahore through Multan to Karachi, the great wheat port, crossing to the right bank of the Indus at Sukkur.

(*b*) A strategic railway, branching off at Rukh Junction, between Multan and Karachi, towards the Bolan Pass and Quetta and Chaman, 75 miles from Kandahar. At Sibi, before reaching Quetta, a branch goes off which again joins the Quetta line at Bostan.

From.	*To Ambala.*	*To Lahore.*	*To Rawal Pindi.*	*To Peshawar.*
Ambala	—	170	320	410
Lahore	170	—	150	240
Rawal Pindi ...	320	150	—	90
Peshawar ...	410	240	90	—

(*c*) A line from Multan along the east bank of the Indus to Attock, 50 miles on the Rawal Pindi side of Peshawar.

(*d*) A line from Golra (near Rawal Pindi) across the Indus to Kohat.

From Lahore to Karachi it is over 850 miles, from Karachi to Quetta more than 500 miles. (1) and (2) are part of the great trunk system which traverses the northern plains from the Ganges delta to Peshawar.

(3) **The Great Indian Peninsular Railway,** which crosses the Western Ghats by high passes from Bombay, has three main lines :—

(*a*) Bombay to Nagpur across the Western Ghats.

(*b*) Bombay to Jubbulpur and Allahabad.

(*c*) Bombay across the Deccan to Madras, by way of Poona.

From Bombay to Nagpur is 430 miles, from Bombay to Jubbulpur 520 miles, from Jubbulpur to Allahabad another 200 miles, from Bombay to Poona 80 miles, from Bombay to Madras 750 miles.

A soldier landing at Bombay and travelling to Calcutta by way of Allahabad has thus nearly 1,400 miles to go before he reaches his station.

(4) **The Madras and South Mahratta Railway,** along the east to Calcutta.

There is also a branch from east to west to Calicut, on the west coast, with branches north and south.

From Calcutta to Madras along the coast is a little over 1,000 miles.

(5) **The Bombay, Baroda and Central Indian Railway,** crossing the north-western Deccan to Delhi and Agra and linking up Bombay with Surat, Baroda, Ahmednabad, Jeypur, and Delhi. Through (3) and (4) the system thus links Bombay and Madras, connects each of these cities with Calcutta, and offers an outlet to the upper and middle Ganges Plain at Bombay.

(6) **The South Indian system** which serves the greater part of Southern India.

While India is large enough to be a great country, on the other hand she has all the advantages of isolation. Her railway system, which radiates from her seaports to all parts of the peninsula, is not linked up with the systems of China or with the Asiatic extensions of European lines.

Roads.

Owing to the lack of metal, Indian roads are few—there is only one mile of good road to every 30 square miles of land—and are not good.

Rivers.

On the other hand, much of Indian transport has always been carried on by its rivers.

Of these, the Ganges, with its tributaries the Jumna and Gogra, are navigable for small vessels up to 1,000 miles from Calcutta. Ocean going vessels cannot travel at all up the river because of the silt at the mouths, and the Hugli tributary is only kept free by constant dredging.

The Indus is of much less value than the Ganges, as it is blocked by shifting sandbanks, and extremely shallow in the dry season. On the other hand, the broad, deep Brahmaputra is navigable up as far as its great bend on the borders of Assam.

The Deccan rivers, which flow in deep gorges, are raging torrents in the wet season, and lack water when it is dry, though, on the eastern plain, they serve a useful purpose, especially where they are supplemented by canals.

Harbours.

The best harbours of India are Bombay and Karachi, though Vizianagram on the Malabar coast has possibilities. Madras is quite inaccessible to the sea at the time of the

north-east monsoon. Like Calcutta, it also suffers by its great distance from Great Britain, nearly 2,000 miles, or a week's voyage farther than Bombay, a distance which is increased by the fact that owing to the obstruction of Palk Strait, every ship approaching India from the west has to pass to the south of Ceylon.

Bombay lies on the eastern side of a small island, and opposite to the Western Ghats. It is thus protected both from the summer south-west monsoon and the winter north-east winds.

Karachi is only inaccessible during the worst of the south-west monsoon. It is also nearest to Europe, and has an excellent harbour.

Defence of India.

The defence of India may be considered under three aspects

(1) Maritime Defence.

(2) Defence of the northern, north-eastern and eastern (Burma) frontiers.

(3) Defence of the north-west frontier.

(1) **Maritime Defence.** — In dealing with the defence of India from possible attack by sea it should not be forgotten that the strategical position of India, with regard to the sea and the naval power of the world, has materially altered since 1914. Before the Great War, in view of the German menace, the navies of Europe were concentrated in European waters, while in the East the Anglo-Japanese Alliance, the understanding with the United States, and the feebleness of Russian sea power, rendered naval action in this quarter of the world unlikely.

To-day, though Germany is out of the picture, notwithstanding the limitation of armaments by the Washington Conference, there is a preponderance of naval power in the East, and the centre of gravity of possible naval activity has shifted to the Pacific.

A map of the world shows that in normal times of peace and quietness the general need for the maritime defence of India is obvious. At the present stage of her industrial development, India depends on the outside world for her

imports, which come, in order of value, from Great Britain, the United States, Japan, Straits Settlements, Germany, France, Netherlands. In war, this need is increased. Also :

(1) Most of the raw materials and components of the munitions which she can manufacture in her own country come from overseas.

(2) The Indian Army cannot as yet entirely undertake the defence of India, except in a limited sense, so that India must for some time require, if her land operations are to be of any size, a considerable accession of men and material.

We may now examine her need in greater detail.

Though India lies on the northern flank of the main road from East to West, she is not close to any of the great sea routes, and any attack upon her would have to be made at a considerable distance from the base of enemy operations.

If she is attacked from the west, the hostile fleet must sail either through the Suez Canal or round the Cape of Good Hope. If the defile of the Suez Canal cannot be defended, the Commonwealth is in great peril. The alternative route is very long, flanked by British possessions along its whole line, and is a tremendous distance from any base of account. Moreover, British reinforcements could be rushed up by the shorter way of the Suez Canal to meet the enemy before he could approach the shores of India.

A sea invasion from the East would be an easier matter for the enemy until his fleet reached the Straits of Malacca. As east of the Straits the route is flanked by Australia, Canada, and British possessions in the Pacific, he might be opposed by the local forces of the Dominions, but it would be a long time before help could arrive from Great Britain. Before, however, he can enter the Indian Ocean, Singapore has yet to be passed. Singapore is the key to the situation. If the Malacca Straits are closed there is only the circuitous way round the south of Australia—dangerously far from bases, and inevitably held by the British Pacific Fleet.

The strategical defence of India from the east is thus based on Singapore. In view of these considerations, major naval operations directed against India seem improbable. But there is always the episode of the *Emden* in 1914, and of the German minelayer near Bombay in 1917, to be remembered. There is always the possibility that raiding cruisers,

submarines, minelayers, or bombing seaplanes may do considerable damage, not only to the rich commercial traffic plying to and from the Indian ports, but to the coast of India itself and to her harbours.

The coastline of India is 6,000 miles long. It has five large defended ports—Calcutta, Madras, Bombay, Rangoon, and Karachi—and one—Vizianagram—on the east coast, north of Madras, of potential value, while all along its shores and in the Laccadive and Nicobar Islands are numberless small harbours which might well afford an illicit shelter and revictualling point for enemy submarines.

In addition to the material results of successful raiding there is always the menace of the moral effect on the impressionable East.

For the protection of her communications by sea, India, which is not yet in a position to man a local navy with Indian personnel, looks to the British Fleet for the upkeep of the East Indian Squadron, to which she contributes £100,000 a year. At the same time she has provided her own funds for the defence of her harbours, which have afforded safe refuge to the ships of the Commonwealth and of the world. Increased security must entail increased responsibility. India needs mobile craft for the protection of her ports. (The Royal Indian Marine is mainly concerned with troop transport, port supervision, and coast survey), machinery to protect convoys within Indian waters, naval bases, dockyards, fuel reserves, in fine, all the necessary equipment of an efficient modern navy. Safety by sea can only be achieved by appreciation of its necessity.

(2) **The Northern Frontier.**—This has always been the most tranquil of the frontiers of India. From end to end it consists of the vast rock wall of the Himalayas, the greatest natural barrier in the world. This wall is really continuous with the ranges of the North-West Frontier, but for the purpose of defence the northern frontier may be separated, as beginning at that point where accessible passes are replaced by tracks suitable only for limited pack transport.

Behind this barrier lies the state of Tibet, fairly easily approached only by the Chumbi Pass through Sikkim. Tibet is a country with a political status practically of the middle ages, of exceedingly high mountains and lofty desert

tablelands and valleys, with a scanty population, whose political neutrality is guaranteed by the Convention of Pekin, and with no resources for modern warfare. Though the frontier with India is not fixed, the two countries are on the friendliest terms, and the possibility of invasion from or through her territory is negligible.

From Jammu eastwards the Himalayas are bordered by a succession of large states—Nepal, Tehri (Garhwal), Sikkim, and Bhutan—all of which are spheres of British influence. Of these Nepal is the only state which has an army trained on modern lines. The Nepalese forces served in India during the Great War, and took part in the Mahsud Campaign of 1917. From Nepal, also, the Gurkhas are recruited. Tehri is the home of the Garhwalis, who did excellent work in France.

Generally speaking, the chief characteristic of the northern frontier is an impassable mountain barrier of great height, bordered on the Indian side by loyal states.

The North-East Frontier.

This may be divided into two parts, which lie within the Indian provinces of Assam and Burma respectively.

Only part of the northern sector of Assam forms part of the Indian boundary. The eastern sector divides the province from Burma. The northern sector runs from the eastern frontier of Bhutan to the mountains north-east of Sadiya, a distance of 345 miles. The political boundary of Assam runs roughly along the foot of the hills north of the Brahmaputra River, running south-east when some way north of Sadiya to meet the Burma boundary. Between this line and the indeterminate frontier of Tibet is a lofty, rugged, densely wooded stretch of country 50 to 100 miles in depth, which is within the British sphere of influence but locally controlled. The whole region is divided into ill-defined sectors, inhabited by subsidized independent tribes with little military instinct, armed with prehistoric weapons, called, from west to east, Akas, Daphias, Miris, Abors, and Mishmis. Order is maintained among them by a Corps of Military Police commanded by British officers, acting under the authority of the civil administration.

Owing to the unwarlike nature of the tribes, the problem of defence is quite simple, unless there is a radical development in the military capacity of China.

The Burma Frontier.

This frontier stretches from the east of the Tibetan province of Zayul to the southern extremity of the Burmese province. Its total length is 1,500 miles, of which 1,000 march *pari passu* with the frontier of China, 125 with that of the French colony of Tongking and the remainder with the boundary of the kingdom of Siam.

The Chinese sector has on its extreme north the Chinese territory of Nkamti Long, with its capital of Putan, brought under British control since 1911.

The northern boundary and the eastern frontier, as far as the Panwa Pass some 50 miles east north-east of Myitkyina, are still in dispute with China, and are extremely difficult to survey. However, the tribesmen are quite docile, and the present *de facto* border line is satisfactory.

From the Panwa Pass the boundary line goes south to the Tai Ping River, and then sharply west to form the Tengyueh salient. After crossing 100 miles of plain at Namkham it turns east again, and on reaching and crossing the River Salwen runs directly south. On the Chinese side of this vague line, the tribes are hostile and turbulent, and the country provides a happy hunting ground for dacoits and criminals.

Strategically, this sector is the most important part of the north-east frontier. It is linked up with the Chinese province of Yunnan, with its population of 10,000,000, by three fairly practicable passes :—

The Kantiang Pass, from Myitkyina to Tengyueh.

The Kulikha Pass, from Bhamo to Tengyueh.

The Kunlong Ferry Pass, from Lashio to the Wa and Shan states.

The Entente Cordiale renders the Tongking sector, which follows the line of the Mekong River, of little importance, while the Siam sector borders on a country whose integrity is guaranteed by Great Britain and France.

It will be noticed that there is no railway along the whole of this frontier, and that communication between Assam

and Burma has to be carried on by a circuitous sea route. The military importance of the whole frontier is confined to the 1,000 miles adjacent to China, which is closely affected by the political condition and possibilities of that country.

(3) **The North-West Frontier.**—Between India and Persia and Afghanistan has always existed an indeterminate territory covered by the barren, inaccessible ranges of the Suleiman mountains, and inhabited by hardy tribes whose surroundings have made for independence. This strip of intractable land stretches 1,400 miles from the outposts beyond Gilgit to the low foothills of Mekran on the Arabian Ocean, though the important portion is really the middle stretch of 600 miles from Bajaw to Shorawak.

In the north the first three or four hundred miles traverse huge mountain masses, with few and difficult passes available only for small bodies of troops during the summer months ; in the south, from Mekran to Nushki and the Bolan Pass there is great barrenness, little water, indifferent communication, and excessive heat for most of the year, so that raiding is uncommon. Indeed, apart from the old trade route to Nushki, now supplemented by a single line of broad gauge railway from Quetta, Quetta is to all intents and purposes the western exit.

The Passes of the Frontier.—In the middle stretch there are, comparatively speaking, more people, and here it is that the great passes cross the Suleiman range, generally along a river valley, from east to west.

The passes are, from north to south :—

(1) The road from Nowshera into Chitral.

(2) The Khyber Pass along the Kabul River, except for its last 33 miles from Jamrud to Dakka.

(3) The Tochi Pass along the Tochi River.

(4) The Kurram Pass along the Kurram River.

(5) The Gomal Pass along the Gomal River.

(6) The Rakhni Gorge, from Dera Ghazi Khan via Loralai and Quetta to Fort Munro and Rakhni.

(7) The Chacha Pass from Dera Ghazi Khan via Harrand.

(8) The Bolan Pass along the Bolan River.

(9) The road from Dera Ghazi Khan to Peshin along the Rakhni River.

(10) The track from Nushki to Koh-i-Malik Siah.

It is the five great passes—the Khyber, Kurram, Tochi, Gomal, and Bolan—that form the chief military feature of the North-West Frontier. They alone provide a passage for large bodies of troops, and the country between them is practically inaccessible, except for the lateral communications built by the British.

The reason for controlling the passes is :—

(*a*) To lessen the chance of raiders descending upon India.

(*b*) To keep the passes open against raiders, who would, if they could, harry them without ceasing.

(1) *The Nowshera–Chitral Road* is hardly a pass. It is a succession of passes from the Malakand Pass (8,240 feet), and after Chakdarra is only possible for pack transport. From Chitral into Afghanistan are a number of tracks, mostly of great height and snowbound in winter, and one fairly easy route down the Chitral River in the direction of Jalalabad.

(2) *The Khyber Pass.*—The first great accessible pass is the Khyber (3,870 feet) on the main road from Kabul, the capital of Afghanistan, to India. It is not very long, as it is only 20 miles from Jamrud on the plains to Landi Khana on the edge of the Afghan plateau. A motor road runs through it, and is continued via Jalalabad to Kabul. It is really the official route, and till the broad gauge railway is completed to Landi Khana its possibilities as a trade route cannot be assessed.

(3) *The Kurram Pass.*—From Kohat a motor road and a narrow gauge railway runs up to Thal, whence a road continues up to Parachinar beyond which the Peiwar Kotal Pass, used by Lord Roberts in his march to Kandahar, in 1878, gives access to Afghanistan.

(4) *The Tochi Pass.*—The Tochi route runs from the railhead at Bannu, where the valley broadens out into a plain that stretches back into the Indus, 70 miles away, to Miran on the edge of the Afghan plateau. A motor road runs to Shah, 45 miles distant, and to Dardoni, 2 miles farther. From Miran Shah it continues over another 25 miles of broken country to Datta Khel, and thence to Dwatoi, where a valley opens out into the plateau of central Afghanistan.

NORTH WEST FRONTIER
OF
INDIA
All Railways and Roads marked will be in operation by May, 1925.
Scale 25 0 50 Miles
Each square is fifty miles square
Chitral
Drosh
Dir
R. Swat
Malakand
Mohmands
Utmanzai Khel
Kabul
R. Kabul
Jalalabad
Mardn
Yuzufzaid
Abbotabad
Shinwaris
Dakka
Lundi Khana
Jamrud
Nowshera
Attock
Peshawar
Afridis
Piawar
Turis
Orakzais
Parachinar
Bangashes
Kohat
Rawal Pindi
Khusalgarh
Thal
Datta Khel
Bannu
R. Korram
Kalabagh
Mari
Idak
R. Tochi
Darwesh Khel Wazi
Razmak
Mahsuds
Wana
Sarwakai
Jandola
Tank
R. Gomal
Dera Ismail Khan
R. Indus
Fort Sandeman
New Chaman
Loralai
Quetta
KEY
Railways
Roads
Durand Line
Administrative Frontier
Tribal Areas
Bangashes
Military Geography

This pass gives access to Ghazni, a halting place between Kabul and Kandahar.

(5) *The Gomal Pass.*—The Gomal Pass runs from Tank up the Gomal valley to Gomandi on the Afghan border. The road from Tank is planned eventually to reach Fort Sandeman.

(6) *The Bolan Pass.*—The Bolan Pass is not so much a pass as a route. It approaches southern Afghanistan from Sibi via Quetta. Eight miles west of Sibi the route follows the Bolan valley some 50 miles to Quetta. It then traverses its bleak plain for another 75 miles till it reaches the Khojak Pass at the top of the Suleiman range (7,000 feet). Thence it runs down through broken country into the open plains of Chaman (4,000 feet), from which point it crosses to the Kandahar Plateau. There is a broad gauge railway with a loop as far as Bostan, and a road from Sibi to Chaman.

The Country of the Frontier.—Throughout its centre the North-West Frontier lies along the Suleiman range, a south-western spur of the Himalayas, between 6,000 to 11,000 feet in height. Between the Indus and the foothills of this range is a strip of land 200 miles wide at Sibi, and almost nothing half-way between Peshawar and Dera Ismail Khan. On this strip, where there is water from the hills, there is fertility; where there is no water it is as dry as a bone. Generally speaking, it is intensely hot, dry, and unhealthy. During the first Afghan War the shade temperature at Sukkur registered a minimum of 138° Fahrenheit, with a maximum of 143° Fahrenheit for five days.

The hills themselves are extremely barren. Their sides are choked with everlasting stones of every size, below bare serrated rocks utterly devoid of vegetation, save for camel-thorn, a few dwarf palm, and stunted scrub. Rainfall is irregular—when it does come, a shallow stream heralded by a spate 20 feet high, becomes a devastating torrent, destroying everything in its path. Perennial water—which is a priceless family possession, the key of all life—is present only in rare springs or on high mountain peaks.

The climate of the frontier varies between great heat and great cold, ranging from 125° in the shade between Attock

and Haidarabad (including the permanent stations of Peshawar, Kohat, Bannu, and Dera Ismail Khan) to zero, and often differing by 50° in a day. Its physical appearance varies between utter aridity and very occasional "Paradise," sheer "clifts," and long stretches of rocky desert.

The People of the Frontier.—The people of the Frontier are a fanatical Moslem race—known as Pathans—sometimes, as in the case of the Baluchis, partly negroid mixed with other blood.

They are divided up into tribes within which are clans or groups of clans. They are governed, sometimes by an autocratic ruler, sometimes by a small number of chiefs, generally by a "jirgah" or body of elders convened in an emergency. Through all there is a great measure of independence, and a man may hold his own views if he has strength and a following to back them.

The chief characteristics of the frontiersman are :—

(1) Depth of religious feeling.

(2) Inherent independence, and ingrained love of guerilla warfare.

(3) An innate love for trickery.

(4) Intense pride.

(5) Self-reliance.

(6) Hardiness and unfailing tirelessness.

His religion is not so much a belief as a feeling based on tradition and superstition. This attitude gives great power to the "mullahs" or Moslem leaders of religion, especially if the priest gains a reputation for sanctity. His independence is due to the continuous failure of any nation prior to the British to hold his raiding hand, or to subject him to orderly rule. Ruse and treachery he will always practice, if to his own interest. Indeed, often he must practice it if he is to win out in the fierce struggle for existence. The physical fitness of the frontiersman and his ability to endure hardship is never quenched by old age, only by death. He is, in peace and war, probably the hardiest man on earth.

It may be noticed that the tribesmen are now armed with firearms of a modern type, and that their military efficiency, aided by members of the Afghan forces, or by men of their own class who have served in the Indian or Turkish Armies, is rapidly improving.

The Policy of the Frontier.—One of the main aims of frontier policy is to make Afghanistan a "buffer" state between India and the Powers to her west, that is to say, between India and Russia.

To this end, neighbourly relations have been established, and an interchange of embassies effected by the treaty of 1921, so that a British envoy now resides at Kabul, and an Afghan minister in London.

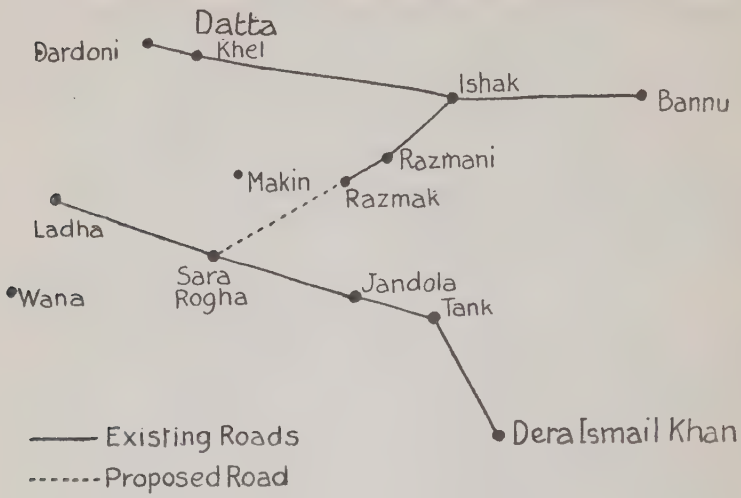
As also, the possibility of great Russian invading armies directed at India from the Oxus is not so imminent as the necessity for obviating insidious penetration, under the British-Afghan Treaty no minor Russian consulates may be established in Afghanistan.

There are two schools of thought in the matter of frontier policy. One school advocates the defence of the line of the Indus, and no further advance. The other believes in an advance to the Durand line running along the uplands, which the present frontier touches at only two points.

Between these two schools are those who believe in a policy of "adjustment in the light of experience." This is the policy that holds sway at present. It is being achieved in two ways.

(*a*) By the building of roads suitable for mechanical transport. Roads have already proved their worth as preventives of raiding on the frontier. The Peshawar—Kohat road and the Kohat—Bannu road areas have brought peace where there was no peace, and such roads are valuable not only for mobility in time of war, but tend to make the tribes take to trades. Moreover, the road policy comprises not merely spurs running towards the frontier, but lateral and circular roads connecting up these spurs. The best illustration is in Waziristan in the region behind the Tochi and Gomal Passes, the raiding centre of the area being Makin.

The following map shows the existing and proposed roads—



When this lateral road is completed from the Tochi valley via Razmak (7,000 feet) to Sara Rogha it will be far easier to control Makin and the turbulent Mahsud and Makin tribes.

(*b*) By the utilization of local tribesmen to defend their own territory. This may take various forms, *e.g.*, (1) "*Khassadars*," or local villagers, who are paid to garrison a portion of the blockhouses along the road; (2) organized unpaid bodies of local villagers who are ready to turn out armed immediately they are given notice of a raid; (3) local militia, such as the Tochi scouts.

Note on the Durand Line.

The southern and eastern boundaries of India and Afghanistan were settled on a basis of delimitation by Abdur Rahman, Amir of Afghanistan, and Sir Mortimer Durand, and the boundary agreed upon, with the exception of the Pamir section, was demarcated in 1894–1895. The Amir agreed that Chitral, Bajaur, and Swat should be included within the British sphere of influence, while he was to retain Asmar and the Kumar valley above it, as far as Arnawai, as well as the tract of Birmal west of Waziristan. In the demarcation Kafiristan was included in the Afghan sphere, and is under the control of Afghan troops. The Khyber boundary was demarcated in 1919, and again on a slightly different basis in 1921.

CHAPTER XIII

The British Possessions in Africa.

For purposes of practical consideration the British possessions in Africa may be divided into (*a*) East Africa, (*b*) West Africa, (*c*) South Central Africa, *i.e.*, Northern and Southern Rhodesia, and Nyasaland.

(*a*) East Africa comprises :—

Colony and Protectorate.	*Approximate Size.*	*Capital.*
British Somaliland Protectorate	Area of Wales, Scotland, and and Ireland	Berbera.
The mandated territory of Tanganyika Territory	3½ times area of the United Kingdom	Dar-es-Salaam.
Kenya Colony and Protectorate	Twice area of the United Kingdom	Nairobi.
Uganda Protectorate ...	Area of United Kingdom ...	Entebbe (Mengo).
Zanzibar Protectorate ...	Area of Derbyshire ...	Zanzibar.

(*b*) West Africa comprises :—

Sierra Leone Colony and Protectorate	Area of Ireland	Freetown.
Gambia Colony	Half area of Yorkshire ...	Bathurst.
Gold Coast Colony and Protectorate, with Ashanti	Area of England and Scotland	Accra.
Nigeria Colony and Protectorate	Three times area of United Kingdom	Lagos.

(*c*) South Central Africa comprises :—

Nyasaland Protectorate ...	Area of Wales and Ireland	Blantyre (Zomba).
Colony of Northern Rhodesia	Three times area of England, Scotland, and Ireland	Livingstone (Abercorn).
Colony of Southern Rhodesia	Three times area of England	Salisbury (Bulawayo).

East Africa is inhabited, first of all, by a strip of Mohammedan tribes from the border of Somaliland (the Juba River) to near the delta of the Zambesi.

This may be called the "Swahili" coast, and its capital is Zanzibar. Here Arab influence—not of a fanatical type—has been strong for 2,000 years. Here, also, are settled a good number of Indians.

Away from the coast is a native population practically all negro, speaking some form of Bantu language. Some of the tribes on the eastern shores of Lake Tanganyika, in south and west Nyasaland and in Uganda are Mohammedans, but the mass of the Bantu negroes are pagans, or have been converted to Christianity. In West Africa the general region known as Nigeria (including British Nigeria), from the Senegal Coast to the Lower Shari River and Lake Tchad, is united by the presence of a Mohammedan population with a distinct culture of its own, with the same type of clay architecture, the same patterns in clothing and hairdressing, and the same mode of life.

South of the Niger basin live negroes—even of an exaggerated type—a small proportion of whom are facile Mohammedans or Christians, while the remainder are pagans.

The people of Rhodesia and Nyasaland are Bantus of negro stock.

All over British Africa, even in white South Africa, there is an overwhelming numerical superiority of coloured peoples. In South Africa, since the slave trade was checked and tribal raids stopped, the Basutos alone have risen from 80,000 (1830) to nearly 600,000 (1920). In West Africa the native population is increasing decade by decade, and Sir Harry Johnstone declares that since 1870 the peoples of negro and negroid Africa have increased by 20,000,000 as a direct result of white man's interference in African concerns.

Exclusive of Egypt and the Anglo-Egyptian Sudan, already dealt with in a separate setting, the proportion of coloured to whites works out as follows in the colonies, protectorates, and territories administered by Great Britain in Africa.

Country.	*Population.*	*Number of Whites.*	*Number of Natives to every White Individual.*
EAST AFRICA :—			
British Somaliland Protectorate ...	300,000	300	1,000
Zanzibar Protectorate	197,000	270	730
Tanganyika Territory	4,100,000	2,200	1,864
Kenya Colony and Protectorate ...	2,500,000	9,600	260
Uganda	3,060,000	1,300	2,354
Nyasaland Protectorate	1,200,000	1,400	857

Country.	*Population.*	*Number of Whites.*	*Number of Natives to every White Individual.*
SOUTH AFRICA :—			
Union of South Africa	4,700,000	1,422,000	3
British South-West Africa	218,000	19,200	11
Native Protectorates	768,000	5,600	137
WEST AFRICA :—			
Nigeria	16,250,000	2,800	5,804
Sierra Leone	1,328,000	1,100	1,107
Gambia	152,000	400	380
Gold Coast (including Ashanti and the Northern Territories, and Togoland)	2,160,000	1,650	1,309
SOUTH CENTRAL AFRICA :—			
Northern Rhodesia	980,000	3,600	114
Southern Rhodesia	846,000	33,600	25
	38,759,000	1,500,020	26

There are thus in all Africa, outside Egypt, twenty-six times as many coloured as whites. Even in the self-governing Dominions of the Union of South Africa the proportion is 3 to 1, while in Southern Rhodesia, which has just obtained responsible government, it rises as high as 25 to 1 ; in Kenya, the highlands of which are eminently suitable for and are occupied by white settlers, to 260 to 1, and in Nigeria, in the southern portion of which a native representative is now able to sit on the Legislative Council, to the abnormal figure of nearly 6,000 natives to every white individual.

As a recruiting base for white troops, except for South Africa, and in a very small degree for Kenya and Southern Rhodesia, the African continent may therefore for the present be disregarded, the remainder of the continent being, owing to climatic conditions, generally unsuitable for white settlement, and the momentum of moving to entirely different conditions too difficult to initiate.

Native Troops.

There remains still, however, the question of coloured troops. In the case of another Great War, it probably would be necessary to utilize the whole available man power of the Empire. In the Great War, and in the present occupation of the Ruhr, the French have made more use of African troops than we have ever done. Would the native inhabitants

of East and West Africa prove a suitable source for such personnel ? Before dealing with the question of possible personnel, it should be remembered that Africa, of all continents the most completely dependent on Europe, has not yet been touched as a military reservoir, and General Smuts has voiced the possible danger of nascent militarism among 100 million people.

First of all, what is the present available fighting material ? There are two native regiments actually recruited in Africa—The King's African Rifles (K.A.R.) in East Africa, The West African Frontier Field Force (W.A.F.F.) in West Africa.

These forces are officered by British officers seconded from the British Army. Each of them serves in that portion of Africa in which it is recruited.

(1) **The King's African Rifles.**—The King's African Rifles, which is administered by the Colonial Office, consists of seven infantry battalions and a supply and transport department, stationed as follows :—

1/1st (Nyasaland), in Nyasaland (Zomba).

2/1st (Nyasaland), in Tanganyika Territory (Massoko).

2nd (Nyasaland), in Tanganyika Territory (Tabora).

3rd (Kenya), in Kenya (Nairobi).

4th (Uganda), in Uganda (Bombe)

5th (Kenya), in Kenya (Meru).

6th (Tanganyika Territory), in Tanganyika Territory (Dar-es-Salaam).

The Supply and Transport Department, in Kenya.

(2) **The West African Frontier Force,** also administered by the Colonial Office, consists of :—

(*a*) 1 Artillery Pack Battery, in Nigeria (Zaria).
1 Light Mortar Battery, in Nigeria (Zaria).
1 Machine Gun Platoon, in Nigeria (Kano).
A Signalling School, in Nigeria (Kano).

Four infantry and mounted infantry battalions of the Nigeria Regiment at Kinduna, Lokoja, Calabar, and Ibadan respectively.

(*b*) The Gold Coast Regiment of four companies, in the Gold Coast with a Pack Battery, a Machine Gun School, and a Signalling School, at Kumasi (Ashanti).

(*c*) 1 Battalion in Sierra Leone with its Signalling School at Darr, and

(*d*) 1 Company of Infantry, in Gambia (Bathurst).

The West African Frontier Field Force was first raised in 1897–98 in the Hinterland of Lagos and Nigeria, the rank and file consisting of Haussas, Yorubas and Nupes, and was stationed at Lokoja, at the junction of the Niger and Benue Rivers, where a battalion of the Nigeria Regiment now is. The 2nd Battalion of Haussas and Yorubas was recruited chiefly at Ibadan in Lagos (the present headquarters of the 4th Battalion Nigeria Regiment), and was then moved to Jebba. At the same time there were three batteries of artillery, a Royal Engineers company, and a telegraph section, so that Nigeria had a miniature army of its own. So well-trained were the troops, that under Lieut.-Colonel (later Sir) James Willcocks they were enabled, in 1900, to raise the siege of Kumasi (in the Ashanti Campaign), and they continued to do excellent work, especially on the frontiers of Northern Nigeria.

In 1899 they had absorbed the armed constabularies of the two colonies of the Gold Coast and Sierra Leone, as well as the Royal Niger Constabulary of Northern Nigeria and the constabulary of the colony and protectorate of Lagos (now Southern Nigeria), and by 1914 had the same number of battalions as to-day. The Nigeria Regiment distinguished itself during the Great War both in the capture of Kamerun and in East Africa.

The best soldiers in Nigeria are the negroid Haussas of Northern Nigeria, the negro Yombas, the most intelligent and industrious of all the tribes of Southern Nigeria, and the Nupes, men of fine physique.

In Sierra Leone the natives are not as good soldiers, but many of the tribes supply excellent canoe men and carriers.

In the northern territories of the Gold Coast are large Haussa colonies.

Before the Great War the **King's African Rifles** were used in the Somaliland Campaign of 1902–1903, and also carry "Ashanti" on their colours. They were created in 1901 by the amalgamation of various armed forces raised in or for the African Protectorates, which were at that time administered by the Foreign Office.

The 1st Battalion, which served in the Ashanti Campaign, became a regular Native Regiment in 1898, and consisted of 9 companies, 3 of which were attached to north-east Rhodesia. The 2nd—raised a year later—was intended to be a foreign service battalion, especially for garrison duty in Mauritius, to relieve the white troops who had gone to South Africa. The rank and file consisted of an Indian contingent with recruits from the Yao, Atonga, and Angoni (Zulu) tribes. The Yaos had been slave raiders, but when their raiding and fighting propensities were turned in the right direction, they made excellent soldiers. The 3rd Battalion dates from 1895, and was composed partly of Sudanese, partly of Swahilis.

The 4th and 5th Battalions were born in Uganda as the Uganda Rifles, and were made up, like the 3rd, of Sudanese and Swahilis. As the 2nd Battalion was disbanded before the South African War, and in 1904 the 5th Battalion abolished, in 1914 of the present seven battalions only three were original, namely, the 1st (Central Africa) Battalion now in Nyasaland, the 3rd (East Africa) Battalion at Nairobi (Kenya), and the 4th (Uganda) Battalion in Uganda. The assumption of new responsibilities in Tanganyika Territory has made the creation of new battalions necessary.

The best material for the King's African Rifles, as for the Egyptian Army and all local police work, are the Sudanese negroes dwelling along the Nile valley from Lake Albert Nyanza to the Egyptian frontier. The Masai of Kenya—with non-negro affinities—long noted for their reckless bravery and long spears, though somewhat inclined to bully and presume on their reputation, also make good recruits, and are devoted to their white officers.

There are also the Swahilis, a general name applied to the coastland people of the East African littoral, often from Zanzibar, where the island of Tumbatu on the west side of its north end is the home of good, sturdy seamen, who serve

in British men-of-war and the mercantile marine as firemen ; the Yaos, fine intelligent physical people of the Shiré Highlands and the south-east and south-western shores of Lake Nyasa, the Atonga from the same region, the fierce warlike Angoni of Zulu descent north-west of the lake, and the Awemba on the Rhodesian border.

Many tribes, however, lack physical capacity or endurance, are not mentally alert, are in a state of degeneration and sterility, or suffer greatly from germ disease, especially from sleeping sickness. Even if you could conscript the whole of the peoples of East Africa, they are often unfitted for labour, or they may be pure savages, though these latter exist only on British territory in south-east Nigeria on the southern border of the Anglo-Egyptian Sudan. But " backward " peoples, difficult to train and discipline, are everywhere. In many instances the result would not be commensurate with the initial effort.

For the white men conditions of service in either East or West Africa are radically affected by climate and the nature of the country. These conditions, of course, vary according to the station.

First, as regards climate, the following table gives the average mean temperature of each of the African possessions in which white officers and non-commissioned officers can serve with a native force.

	Country.	*Average Mean Temperature.*
West Africa.	Southern Nigeria	78·5° F.
	Northern Nigeria	80° F.
	Gold Coast—Coast	79° F.
	Interior	82° F.
	Sierra Leone	81° F.
	Gambia	80° F.
East Africa.	Kenya (dependent on altitude)	80° to 60° F.
	Uganda (dependent on altitude)	75° to 60° F.
	Nyasaland (dependent on altitude)	70° F.

There are, however, certain special features.

In East Africa, while the maximum temperature of the highlands may never reach more than 90° Fahrenheit, and may drop to 40° Fahrenheit in the cold season, in the lowlands as high as 120° Fahrenheit may be registered in the heat of the summer. Much also depends on rain. Rain, combined with even moderate tropical heat, is more trying than dry

heat. The trying time in Nyasaland, for instance, is between November and March, when the rainfall and the temperature reach their highest. Except in the highlands, all whites are more or less subject to malaria in its severest form—"blackwater fever"—and children have to be removed to a more temperate climate when they have reached the age of 3 or 4 years. Apart from germ diseases, which are independent of the climate, the elevated plateau of the Kilima Njaro Highlands in Kenya, reserved for the white man, and the forests of the Ruwenzori region of Uganda have a charming climate.

East Africa is not all dense tropical bush. In the extreme north of Uganda, for instance, is a dry bare inhospitable region in striking contrast with the southern slopes of Lake Victoria Nyanza, a land of rich forest interspersed with green downs and granite mountain tops, or with the marshes of the eastern province. Throughout the whole of Nyasaland, except on the high table lands, vegetation is profuse. Kenya has its thick forests, but it has also its open grass lands, with clumps of trees, the best big-game preserve in the world, stocked with a varied assortment of zebras, gazelles, hippos, rhinos, and waterbuck. West Africa has a narrow strip of coastal plain, extending along the banks of one or more rivers to a low plateau in the interior some 2,000 feet above sea-level, covered with thick forests, but there are no highlands as in East Africa, and the climate is intensely hot all the year round, except in Gambia, with heavy rainfall accompanied by violent thunderstorms.

The great heat and the moisture will probably, notwithstanding the great improvement that medical skill has made in the conditions of living, always make West Africa unsuitable for permanent white settlement. On the other hand, West Africa is in some ways a richer country than East or South-Central Africa. The most valuable exports of West Africa are timber products—mahogany, ebony, rubber, and above all, palm oil for the soap works of Birkenhead. Cotton is also grown, especially in Southern Nigeria, with a fibre of good quality, while cocoa, an industry which did not exist twenty years ago, and now produces 10 million tons a year for export, is the chief source of wealth of the Gold Coast. Tin is mined also in the Bauchi district of

Nigeria, and sent to Swansea; and there is a useful coalfield at Udi, south of the Benue River.

The interior trade of West Africa is still carried along its rivers, the native canoes, especially on the Niger, being supplemented by motor-launches and steamers. Forest tracks, especially in Nigeria, are also giving way to good metalled roads and railways. The communications of each possession will now be dealt with separately.

(a) West Africa.

(1) Nigeria.—(Divided for the purpose of government into the colony of Southern Nigeria and protectorate of Northern Nigeria).

The value of the trade of Nigeria has increased from £5 millions in 1904 to £12 millions in 1914 and nearly £38 millions in 1920. This is mainly due to the opening up of railways and roads. The Nigerian Government Railway runs 700 miles north-east from Lagos to Jebba on the Niger, up to which point the river is navigable, and thence to Kano, the starting point of the caravan routes to Morocco, Algiers, Tripoli, and Egypt and the Sudan. At Zana on the road to Kano, is a branch to Bukuru, a tin mining centre in the Bauchi mountains, and at Minna another running in a south-westerly direction along the Lower Niger to Baro (111 miles). The coal of the Udi River is carried by rail to the sea at Port Harcourt on the Bonny River. There is also a wireless station at Lagos under the African Direct Telegraph Company. Within Nigeria is also included a small portion of ex-German Kamerun, west of the main mountain range, but including the Kamerun mountain.

It is not unlikely that the railway system of Northern Nigeria may eventually be joined up with the French Trans-Saharan Railway. This line is being rapidly constructed from Oran between Tangier and Algiers across a series of oases to Tonat. From this latter point it will traverse the Tanezrouft or " Region of Thirst " to Timbuctoo, having its southern terminus at Ugadugu, across the Niger River in the upper Volta region. This line is intended primarily for the transportation of recruits for the French native army. Under the new military law, 280,000 natives are to be recruited each year, and the bulk of these recruits must necessarily come from French West Africa.

But the north and south Trans-Saharan line is also part of a much bigger scheme of French communications in Africa.

The building of this railway would not only be of strategic value, as enabling troops to be rapidly carried across the desert and thus avoid the possibility of attack by sea, it would also carry the commodities of the more temperate zones of Europe and North Africa—grain, groceries, cotton stuffs, hardware—to Timbuctoo, the great market of North-Central Africa, in exchange for dates, leather, and wool. Moreover, the Sahara itself is more than a shifting waste of trackless sand. Apart from its mineral resources—coal, already found along the Moroccan frontier south of Algeria, rock salt, zinc, lead, oil—there are vast patches where the occasional winter rains supply sufficient moisture to produce bushes and grass to feed the flocks and herds of the desert nomads.

Such a railway would of necessity lead on to other lines. At present two French railways from Algeria run into the Sahara. The one, whose continuation we have just considered, starts from the seaport of Oran and goes down the Algeria–Morocco frontier to its present terminus at Colomb Bechar, while the other runs south from Philippeville and Constantine to the oases of Biskra and thence, on a narrow gauge, past the west Ghir group of oases and the " Shats " or salt swamps of the west side of the Gulf of Gabes to Tuggart.

This it is proposed to carry on to Insalah, the chief village in the oases of Tidikelt, and so on in a semi-circular sweep to join the first line at Tosaye near Burem on the Niger.

In French West Africa south of the Sahara there are also several narrow gauge railways. One joins the Atlantic ports of Dakar and St. Louis in Senegal, and runs inland past Kayes to Kulikoro on the upper reaches of the Niger; a second starting at Konakry in French Guinea near Sierra Leone, crosses the Niger near its source at Kurussa and turns towards the south-east to end at Beyla, while a third leaves the sea at Bingerville on the Ivory Coast and runs north to Kong, throwing out a branch towards the west in the direction of Beyla.

Once all these detached lines are linked up with the Trans-Saharan Railway and with the railway system of the French Mediterranean colonies, and the Straits of Gibraltar are tunnelled, it may be possible, by prolonging the present

MOROCCO
ALGIERS
TUNIS
FRENCH WEST AFRICA
GAMBIA
SENEGAL
SIERRA LEONE
LIBERIA
GOLD COAST
NIGERIA
CHAD
ANGLO EGYPTIAN SUDAN
FRENCH SOMALILAND
BRITISH SOMALILAND
CAMEROONS
FRENCH EQUATORIAL AFRICA
UGANDA PROTECTORATE
KENYA COLONY
TANGANYIKA TERRITORY
NYASALAND
NORTHERN RHODESIA
SOUTHERN RHODESIA
BECHUANALAND PROTECTORATE
BRITISH S. W. AFRICA
SOUTH AFRICA
TRANSVAAL
ORANGE FREE STATE
NATAL
UNION OF SOUTH AFRICA
CAPE OF GOOD HOPE
MADAGASCAR
ATLANTIC OCEAN
FRENCH & BRITISH POSSESSIONS IN AFRICA
French
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Military Geography

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line from Casablanca (and from Tangier) to Marrakesh, to join the west Sudan system in Senegal, to reach Konakry, the nearest French African port to South America, in five days. As it is only a three days' journey from Konakry to Pernambuco, Paris and South America will then only be a matter of eight days apart.

On the other side of Africa it is hoped to connect the French railway from Tunisia by a coastal line running through the Italian colony of Tripoli with that proceeding westward to Alexandria, and so link up Timbuctoo with the Palestine railways and the pilgrim route to Medina. At the same time a Casablanca—Dakar air service, whereby a letter posted in London can reach Senegal in five days, has been inaugurated, and Casablanca may yet become a world centre with branches south to Senegal, west to Tunis and the Sudan, and south across the Sahara to Timbuctoo.

(2) **The Gold Coast.**—In the Gold Coast there is one railway from Sekondi to Kumasi (167 miles) with several short branches, and another from Accra to Anyinam (84 miles), which will eventually reach Kumasi. The Government has opened and controls a large number of metalled roads. The Gold Coast includes the western length of ex-German Togoland.

(3) **The Gambia.**—In the Gambia there are no internal telegraphs, railways, or metalled roads, except one $7\frac{1}{2}$ miles long. On the other hand, the inland waterways of the Senegal and Gambia Rivers provide an unrivalled medium of transport for 300 miles.

(4) **Sierra Leone.**—Sierra Leone has a few main roads and a main line of light railway (2 ft. 6 in.) running from Freetown eastward through the length of the colony to the frontier of Liberia (227 miles), with a spur running north for 104 miles from a junction 65 miles from Freetown.

Harbours.—The harbours of West Africa are few, far between, and poor. The coast is singularly unindented and surf-beaten, and the river mouths choked with mangrove swamps and sand-bars, and often fringed with lagoons. Consequently, an enormous amount of work has to be done before its harbours can be brought up to date. The best natural harbour is Freetown, in Sierra Leone, half way between Liverpool and Cape Town, and on the eastern side of the

narrowest width of the Atlantic (1,900 miles). Bathurst is also a coaling station, but not a good harbour. On the other hand, much is hoped of the deep sea harbour at Takoradi in the Gold Coast, as also of the great harbour of Lagos in Nigeria.

(b) East Africa.

(1) British Somaliland is bordered by Abyssinia and by Italian Somaliland. All its population, except on the coast, is Arab and nomadic. There are no railways, no porters, no newspapers, only rough motor roads and camel tracks.

The country is controlled by a Camel Corps of 400, including an Indian company, and 500 police. Its main exports are skins, hides, gum, and resin. Through French Somaliland via the Franco-Ethiopian Railway to Djibuti, and through British Somaliland via camel to Berbera comes the overland transit trade of Abyssinia. This trade and the grazing possibilities of the grass lands in this region make the settlement of the ill-defined eastern part of Abyssinia in the hinterland a matter of some moment.

It was on this frontier that the Fashoda incident occurred, in 1898, a French mission having penetrated to Fashoda, on the Upper Nile, at the same time as Kitchener, after the defeat of the Dervishes at Omdurman, was proceeding up river to complete the conquest of the Sudan.

(2) Uganda.—Uganda is more than 800 miles from the sea and 500 miles from the eastern end of Lake Victoria Nyanza. It is bounded on the east as far north as 4° by Kenya, on the south by Tanganyika, on the west by the Belgian Congo, and on the north by the Sudan. In any consideration of the communications of Uganda, the Cape to Cairo Railway, of which it is the last stage, must always be kept in mind. This railway, which is to run uninterruptedly south by north through British possessions or spheres of influence along the whole length of the African continent, is now less difficult of achievement than when it was first mooted, owing to recent extension of British territory in the belt between the Nile and the Zambesi ; but it is not yet an accomplished fact, and still has notable gaps. As a uniting factor it has great possibilities, and the stretching out by South Africa of trade feelers towards Kenya, Tanganyika, and Uganda is significant. Actually, the southern section of the line has

been carried beyond Mafeking along the edge of Bechuanaland, which was taken under " protection " for this purpose, to Bulawayo in Southern Rhodesia (1,362 miles from Cape Town), and thence across the Zambesi and through the Wankie coalfields towards Broken Hill and beyond in a north-easterly direction to a point near Mayaba, a copper mining centre at the south-east corner of Belgian Congo.

This is its present British terminus, its natural continuation being probably across North-Eastern Rhodesia to the southern end of Lake Tanganyika. The northern section of the line runs beyond Khartum to El Obeid in the Anglo-Egyptian Sudan, but the railways of Northern Rhodesia and the Sudan are not yet joined, and meanwhile the natural direction of East African railways is coastward, a not surprising fact if we realize how good the coast harbours are.

In Uganda the whole of the intervening country between the colony and the sea, even for Africa, is unhealthy and sparsely populated. Consequently, a one-metre railway planned in 1895, and called the Uganda Railway, was built from Mombasa (Kilindini)—a very fine natural harbour—to Port Florence on the Lake. As a matter of fact, the whole line is in Kenya, and stops at Kisumu about 100 miles west of the Uganda border, whence the journey to Uganda is completed by lake steamer. At present the only railways in Uganda itself are a 62-mile line from Jinja to Namasagali on the Victoria Nile, and a short stretch of $5\frac{3}{4}$ miles from Port Bell to Kampala (Mengo), the centre of the cotton growing industry.

Uganda, however, will soon have a railway of her own, when the Uasin Gishu line through the thickly populated native area of north Kavirondo is completed. This railway, after crossing Kenya, will make its way up into Uganda at Jinja, the point where the Nile runs into Lake Victoria Nyanza, the route being from Mombasa by way of Nairobi, Nakuru, Eldorat, and Tororo to Jinja. Eventually this line will cross the Nile and continue north-west towards the Sudan, possibly electrified by the Ripon Falls.

Uganda now uses the Kenya line for its exports of coffee and of cotton, which are increasing by leaps and bounds. Under the agreement of April 1st, 1921, the line is administered by a Central Railway Council, chosen jointly from

both colonies. The exports of Kenya, in 1920, were valued approximately at £3 millions, so that, with the Uganda trade, Mombasa did a business of £8 millions.

The Voi—Taveta Railway from Voi in Kenya to Taveta and thence across the boundary to Kahe in Tanganyika, which has fallen into disuse, is also being reconditioned. This line will carry the produce of the fertile districts around Moshi and Kilima Njaro to Kilindini Harbour.

(3) **Zanzibar.**—Zanzibar has in its port one of the finest in Africa, which for long was a centre of trade with Arabia, India, and the mainland. Kilindini and other mainland ports have, however, with the development of the continent, taken away much of her importance, while Aden has become the focus for the business of the Aden peninsula. Notwithstanding this, by virtue of her geographical position, Zanzibar is bound to retain control of much of the local traffic. Zanzibar has no railways, except one light railway running north from the capital to Bububu (7 miles), but 75 miles of roads suitable for motor traffic.

(4) **Kenya.**—Kenya Colony and Protectorate, so named since July, 1920, includes a mainland strip of territory leased from the Sultan of Zanzibar, and the former East Africa Protectorate with a coast line of 800 miles. It is bounded on the north by the Juba River, Italian Somaliland, and Abyssinia, on the east by Uganda, and on the south by Tanganyika territory.

The Jubaland (Italian) frontier has now been settled by granting the Italian claim to the country east of the line Dolo, Lorain Swamp, Dicks' Head, including the port of Kismayu.

Its population contains about 10,000 Europeans and 23,000 British Indians (" banyas," or small traders). The position of these Indians has aroused a good deal of interest. In 1922 they were granted a " wide " communal franchise, and were permitted to elect five members to the Legislative Council, who should possess sufficient knowledge of English to enable them to take part in its proceedings, while segregation in townships was abandoned, and an area for experimental agriculture was set aside for them, the reservation of the highlands for the Europeans being maintained.

Most of the coast natives are Arabs or Swahilis, but in the interior there are non-Bantu tribes, Masai, Somalis, Kavirondo, and Galas. The Galas are a fine race, but not altogether friendly. On the other hand, the Masai have a great liking for whites. The Kavirondo, fairly recent migrants from the Nile, still live in a state of barbaric innocence.

The capital, Mombasa, lies on the eastern shore of an island of Mombasa, and is the terminus of the Uganda railway, running inland to Port Florence on Lake Victoria Nyanza. The best and deepest sheltered port of the island is Kilindini, which is very nearly equidistant (2,000 miles) from Port Said, Cape Town, and Bombay. It is 6,500 miles from London.

The climate of Kenya is very diverse. On the northern boundary the scanty and very insufficient rainfall produces desert conditions. A great portion of the coast belt is rich in vegetation. Ten miles inland, proceeding westward towards the interior plateaux, there is a marked lessening of rainfall, with a consequent decrease of fertility. The plateaux are between 5,000 and 8,000 feet high, roughly bounded by the three great mountain groups of Kenya, Kilima Njaro, and Elgon, which with an average annual rainfall of from 40 to 100 inches have been set aside as a restricted area for white settlers. As the plateaux merge into the slopes of Mount Kenya (17,000 feet) and adjacent mountains, we reach the densest and richest forests in East Africa. Among the chief exports of the country are cotton, hides, wool, maize, potatoes, copra, and rubber.

(5) Tanganyika Territory.—Tanganyika territory is the name given to that portion of German East Africa—the most valuable and thickly populated of the German possessions in Africa—which was allotted to Great Britain by the Council of the League of Nations to be governed under a mandate of the " B " type from the League of Nations. It is bounded on its south by Portuguese East Africa, on the west by Northern Rhodesia and Lake Tanganyika, on the north by the Belgian Congo, Uganda, and the Kenya Colony.

It has a native population of Bantu tribes numbering 3½ millions. Its coast line of 600 odd miles has many

harbours, but only one of these—Dar-es-Salaam—is accessible to ocean going vessels. Tanga, however, with its shifting sandbanks and primitive arrangements for loading cargo handles the bulk of the exports of Tanganyika territory. The country is opened up with wide, well-kept roads, and there are two railways—the Tanga railway, from Tanga to Moshi (220 miles), and the Central Railway (780 miles) from Dar-es-Salaam to Kigoma. This railway was originally built by the Germans for military reasons.

The trade of the territory, with exports of sisal hemp, cotton, hides and skins, copra, coffee, grain and rubber, is chiefly with India, Kenya, and Zanzibar.

Its least favourable portion is the coastal strip from 10 to 15 miles broad, a fever-infested regionwith poor drainage. Farther west the interior plateau with great variety of relief gives great opportunity for a diversity of products. There are considerable areas suitable for coffee and cotton growing.

The Usambara highlands may well prove a "white man's country."

Part of the Ruanda area in the north-west, which belonged to the Belgian Congo, has been detached by mutual agreement to allow for the passage of a British railway from south to north.

(c) South Central Africa.

(1) Nyasaland.—Nyasaland has an interior railway from Port Herald on the lower Shiré to Blantyre (113 miles), and like other possessions on great lakes has a connecting steamer service.

While Nyasaland is, like Uganda, an inland country, unlike Uganda she is separated geographically, if not in an economic sense, from her outlets—not by a British possession, but by Portuguese East Africa. Her main line of export is operated by the Central East Africa Railway Company from either Port Herald to Chindio (61 miles) and by steamer to Chinde at the mouth of the Zambesi (45 miles on Portuguese territory), or, when the Zambesi is bridged at Murassa, to Beira (185 miles)—all on Portuguese soil—20 miles of which are yet to be built.

A scheme to link up Port Johnston at the southern end of Lake Nyasa with the Blantyre–Beira Railway is, at present, in abeyance.

Beira, however, is not yet in a position to cope with the present trade—not to mention the future commerce—of Nyasaland and the Rhodesias, unless it is very much improved.

Possibly the future outlet of Nyasaland, if not through the Cape, will be by the quicker route from the Katanga district to Loanda and Lobito Bay in Portuguese West Africa.

(2) **Northern Rhodesia.**—The white settlers of both the Rhodesias are almost wholly of British stock, with the exception of a few French and Swiss missionaries in Basutoland. While, however, the future of Southern Rhodesia lies in close connection with the Union of South Africa, Northern Rhodesia is in climate, geography, and vegetation part of Central Africa. Of vast size, stretching from Lake Tanganyika on the east to Portuguese Angola on the west, it possesses a great diversity of physical features, but no common history of homogeneity, save such as is provided by British administration. Mainly it is, and must remain for a considerable period, a country for the natives.

What white inhabitants there are live generally along the " railway strip " of that part of the Cape to Cairo Railway line that brings south the copper of the Katanga mines. Just north of the Zambesi is the capital, Livingstone, and by the side of the railway are the lead and zinc workings of Broken Hill.

The only other white community raises cattle near Fort Jameson on the Nyasaland frontier, four weeks' journey from Livingstone.

East of the " railway strip " the country is a native reserve, little suited to white settlement, of dense bush or vast tropical swamps—British by agreement, not by conquest.

West is Barotseland, as much restricted to natives as Basutoland. One suggestion as to the future of the country has been that it should be divided into three portions :—

(*a*) Fort Jameson area to go to Nyasaland.

(*b*) Barotseland to have a separate administration.

(*c*) The " railway strip " to became a separate colony or to join Southern Rhodesia.

Northern Rhodesia became a Crown Colony on April 1, 1924.

(3) **Southern Rhodesia.**—Southern Rhodesia, which is now a self-governing colony, has by far the greatest share of the trade of Central Africa through its capital, Salisbury. Though it suffers from the lack of a seaport, most of its exports consist of gold, but include iron ore and tobacco. It is eminently suitable for settlement by whites, with a reasonable amount of capital.

CHAPTER XIV.

The Near and Middle East.

As far as Great Britain is concerned the **Near East** comprises Egypt and the Anglo-Egyptian Sudan, the **Middle East** Palestine and Iraq.

The problems of both the Near and Middle East, though they have assumed a different aspect, are just as serious in 1924 as they were in 1914. Indeed, as far as Great Britain is concerned, the assumption of new responsibilities has given them a wider meaning.

Their significance lies mainly in their relation to our great trade route from west to east through the Suez Canal, and to the defence of India.

Before the Great War we held this main line of communication at the necessary strategical points, and watched very carefully any attempt by another Power to interfere with this line. To this end we blocked the Russian approach to warm water on the Persian Gulf, kept a careful eye on the Berlin—Baghdad Railway and the German idea of "Mittel-Europa," and established a permanent position in Egypt. Since the Great War the German danger has disappeared, Egypt has become, first in 1914 a protectorate, and then in 1921 an independent kingdom, and we have accepted a mandate for Palestine with Transjordania, under the League of Nations, and for Mesopotamia or Iraq. Of these mandates, that which applies to Iraq is rapidly being loosened as she attains to statehood. The main problems may be divided on a geographical basis into the following divisions :—

(1) British relations with Soviet Russia.

(2) British relations with Turkey.

(3) British relations with the Great Powers in the Mediterranean.

(4) British relations with Egypt and Abyssinia.
(5) British relations with Palestine and the Jews.
(6) British relations with the Arabs.
(7) British relations with Iraq and Persia.

(1) The Russian Problem.

In view of the hugeness of Russia and its enormous population, this problem has always been a matter for serious consideration in connection with the safeguarding of the eastern trade route.

The Russian menace, as the absorption by the Russians of neighbouring peoples was called, first attracted British attention in the early years of the twentieth century, especially in 1903, when the Russian and Indian frontier almost touched at Kashmir in the Pamirs, and again in 1904 when the Russian advance in Manchuria and elsewhere in northern China caused the Russo-Japanese War.

Moreover, Russia was moving not only east and south-east, but in other directions.

The Russification of Poland continued from the Congress of Vienna in 1815 to the beginning of the Great War; in 1910 the constitutional guarantees of the Finns were set aside, and Russian influence was always aggressive in northern Turkey, on the borders of Transcaucasia, and in both Persia and Turkey towards the Persian Gulf.

The break up of the Russian Empire in 1917 was not altogether surprising, owing to the diversity of ideals, customs, nationality, and history that pervaded the extensive dominions under Russian control.

The diversity of peoples is most obvious. In 1914 there were within the Russian Empire as many as nine groups—Little Russians, Poles, Lithuanians, Letts, Armenians, Rumanians, Finns, Esthonians, Georgians—with more or less political self-consciousness, anxious for independence, autonomy, or at least for alliance with the country that they regarded as their own peculiar homeland.

Of these elements, five, the Poles (Poland), Lithuanians (Lithuania), Finns (Finland), Letts (Latvia), and Esthonians (Esthonia) secured and have retained their nationality as an outcome of the Great War.

The rest of the original Empire has been divided since December 30, 1922, into a number of independent Federated Soviet Socialist Republics comprising :—

(1) Russia (including Siberia).

(2) White Russia.

(3) The Ukraine, which may or may not include Bessarabia.

(4) The Transcaucasian Federation of Soviet Republics :

(*a*) Azerbaijan.

(*b*) Armenia.

(*c*) Georgia.

Outside this union there are two " popular " Republics Khorezm (Khiva) and Bokhara, which are allied with all the others to form the R.S.F.S.R. or Russian Socialist Federal Soviet Republic.

This is the central nucleus. On its north, south, and east lie a number of areas under the Soviet regime with complete local autonomy. These comprise :—

(i) Labour Communes :

(*a*) Karelia.

(*b*) The German Volga Commune.

(ii) Autonomous Areas :

(*a*) Voriak.

(*b*) Zirania.

(*c*) Kalmuk.

(*d*) Merv.

(*e*) Chuvash.

(iii) Autonomous Republics, owing their origin to a Decree of the Moscow Government :

(*a*) Bashkir.

(*b*) Tartary.

(*c*) Crimea.

(*d*) Mountain of North Caucasus (Gorsky).

(*e*) Daghestan.

(*f*) Kirghiz.

(*g*) Turkestan.

The vast indefinite tract of country called Mongolia has, on paper, the same relation to Russia as Bokhara and Khiva, but in this region Chinese interests are largely concerned, and Inner Mongolia is governed by Tartar Generals appointed by the Chinese Government.

Many of the so-called "autonomous republics" are really primitive ethnic Mohammedan groups, with leanings towards Turkey and the rest of the Mohammedan world, and their national self-consciousness is often based on their faith in the Pan-Islam and Pan-Turanian movement, appealing to the sense of religious and racial solidarity. Kuban and Northern Caucasia are now independent states, while beyond the Urals the Far Eastern Democratic Republic of Siberia has been in operation.

To this natural and created ethnical chaos has been added, since 1918, civil, external and economic war.

In 1919–20 the Soviet Government within Russia was engaged in conflicts in south-western Russia and eastern Ukraine, in western Ukraine, with the Poles, the Letts, the Lithuanians, the Esthonians, with the army of Yudenitch, with the Finns, in Siberia, in the Crimea, as well as with the Rumanians and the French in southern Russia, with the Czechs, Americans, and Japanese in Siberia, and with the British in the Archangel region.

Further, the town has constantly been in conflict with the country. For the city needed the food of the country, but it had nothing to give in exchange in the way of manufactured goods.

In face of all this, it is obvious that Russia as a huge combined physical force likely to threaten British interests in the East no longer functions. But there is always the possibility of its reorganization on its present basis as a great confederation which may revive the long-standing conflict in Central Asia, and threaten communications with India and the Far East.

All the reaching forward of Russia for the last three hundred years has been towards an ice-free port. All her rivers are frozen for part of the year—the Volga for nearly half the year in the north, and for three months at Astrakhan on the Caspian Sea, the Don and Dnieper for more than a hundred days on the average, the Dvina for about 125 days, and the Vistula for more than two months.

The movement in the Far East beyond Vladivostok—now again, since the Japanese evacuation of October, 1922, in Russian hands—the vain effort to get to the head of the Persian Gulf, the development of the Murman Coast, where

the warm water of the Gulf Stream keeps Alexandrovsk, north of the Arctic Circle, open all the year round, the struggle with Turkey and the Powers of western Europe for Constantinople, are all significant movements in a struggle that may yet begin again.

One new development is the renewed interest in the Russian-Chinese Eastern Railway—that section of the Trans-Siberian Railway which crosses Manchuria. Manchuria at present is in Chinese hands.

Apart from physical force there is the persuasive power of propaganda.

Russia's attitude towards India is inextricably connected with her desire for expansion eastward. India—fertile and developed—has always stood in marked contrast to Siberia, fertile but undeveloped. As we have seen, 1903 was the date when England and Russia almost touched, but the idea of a victorious march forward in the steps of Alexander the Great is far older.

It begins with the Franco-Russian Entente that followed the Peace of Tilsit, with the suggestion of Napoleon to the Tsar of a forward movement to thwart Britain in a continent where he himself had met his bitterest disappointment, though it was not until 1836 that the mission of Captain Vicovitch to Kabul first turned the scales of Afghanistan in favour of Russia. That Russia disowned and severely censured Vicovitch, that he burned his papers and then committed suicide, was due to the Russian alarm at Britain's strong stand on the whole question of interference in Afghanistan. Nor was another move made until 1868 and 1873, when the ancient kingdoms of Bokhara and Khiva were successively brought under vassalage. The second Afghan War of 1879–1880 was directly due to Afghan acceptance of a Russian envoy, and refusal to admit a British resident, and when, a year later, Merv was ceded, it was only the prelude to the Penjdeh incident of March 30, 1885, when, during the process of delimitation of the boundaries of Afghanistan by an Anglo-Russian Mission, the Russian military commander, Alikhanoff, attacked and defeated a small Afghan force. Penjdeh was probably a direct challenge not only to Afghanistan, but also to Great Britain. However, our firm attitude won the day,

aided by the temperate conduct of Abdurrahman, the Amir of Afghanistan, and substantial defensive preparation on the North-West Frontier, including the construction of two lines of railway to Quetta, were our practical answer to the challenge.

From Penjdeh until 1914 the completion of a broad gauge line up the Murghab valley to Kushk post, as a set-off to the Quetta extension, made Russia ready for immediate action through Herat in case of emergency, but most of her energies were concentrated on the Trans-Siberian Railway. After the failure of the Russo-Japanese War the joint policy of the two nations was " live and let live," and from the outbreak of the Great War until 1917 Anglo-Russian relations were never so friendly.

Since 1917 (though Lenin declared that the road to London is through Kabul and India, and a Bolshevist circular of November, 1922, stated that Central Asia and the states bordering on India are to Russia outposts from which Soviet authority should be able to threaten England) internal affairs have discounted military ambitions.

Russian methods are now the methods of agents and propagandists in northern Persia, with its approach to Baluchistan, in Afghanistan, in British territory itself along the North-West Frontier, in Russian Turkestan, a great lobe of Russia thrust southward into Inner Asia, mitigated to some extent by the Anglo-Afghan Treaty, and liable to diminution with the diplomatic recognition of the Soviet Government, and the Anglo-Russian Agreement of 1924.

(2) British Relations with Turkey.

" There are four cities—all closely connected with Mediterranean history—Rome, Athens, Jerusalem, and Constantinople, that belong to all men." Of these, Constantinople is still, as she always has been, the most important. With her very strong natural defences and her position at the crossroads of Europe and Asia she has profited largely from the trade of Southern Russia, the Transcaucasus, Persia, and Mesopotamia, as in earlier days she rejoiced in the overland trade of Inner Asia, India, and the Far East. Through Constantinople, also, ran the Berlin–

Baghdad Railway line, by which Germany hoped to control the Near East and the road to India.

As a commercial thoroughfare for the products of the East, Constantinople now has only a limited value.

A large part of the commerce of the Straits, both of the Bosphorus and of the Dardanelles, passes her door, but does not enter. She began to lose much of her importance as a great focus of sea and land roads after the opening of the Suez Canal (1869) and the establishment of an all-sea route to India and Persia. And though she grew again in both a political and military sense with the agricultural and mineral development of south-western Russia —in 1914 she was promised to Russia by the Allies if they won the war—her prestige has lessened once more with the rise of the new Turkish Republic.

As the old capital of Turkey she was the residence of the Sultan, who as Caliph has always declared himself the supreme head of the Mohammedan world, delegating his religious power to the Sheikh-ul-Islam, but the new capital of the Turkish Republic is now Angora, over 200 miles away in the interior, and now that the Caliph has left Constantinople, there are Mohammedans, notably the Arab chiefs of Mecca, Medina, Baghdad, Smyrna, Yemen, and Asir, who have always looked to the King of the Hejaz—he is not the Sultan, but an elected Prince of the House of Osman, "The Commander of the Faithful"—and to Mecca rather than to Constantinople for their religious inspiration.

Two factors have modified the position of Constantinople in the last decade. One was the failure of the Pan-German policy. The visit of the German Emperor to the Near East, in 1898, was followed by the project of the Berlin—Baghdad Railway to tap the copper mines of the Taurus mountains in south-western Armenia, and bring out the tobacco and fruits of Kurdistan and Mesopotamia in exchange for the manufactured goods of the German mills.

The railway line itself was to be the middle section of an international line from Paris to Calcutta or even to Pekin.

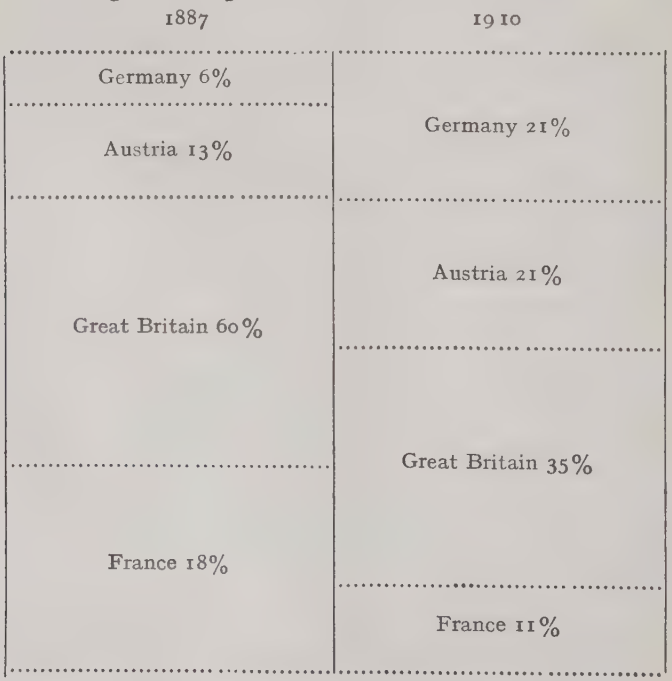
It begins at Haidar Pasha, on the Bosphorus shore opposite to Constantinople, and runs by way of Konia to

Adana. Beyond this it encounters a serious obstacle in the Taurus mountains. It then continues to Aleppo, crosses the Euphrates at Jerablus, and should pass through Ras-el-Ain to Mosul (from Nisibin to Mosul and from Mosul to Shergat there is a gap) and Baghdad on the Tigris. There is a branch line to Alexandretta (Skanderoon) on the north-eastern shore of the Mediterranean, while Aleppo is a junction for the Syria—Hejaz Railway with a terminus at Medina and short lines linking up important points in Palestine and Syria.

Plans have also been worked out for a northern line to feed the cities of Asia Minor—Angora, Sivas, Kharput, and Diarbekir, and a branch into Persia by way of Khanikin.

Economically, the completion of the line would be a great asset.

The following diagram shows its value to Germany in terms of imports into the Turkish Empire, the furtherance of German economic designs in Turkey being only a prelude to a virtual political protectorate :—



Secondly, the position of Constantinople has been modified by the defeat of Greece by Turkey in 1921, and by the terms of the Treaty of Lausanne of June 24, 1923.

Under the Treaty of Sèvres of August, 1920, Constantinople was left only nominally in Turkish hands, as merely a minute hinterland was left to Turkey in Europe, the Allies obtaining Suvla Bay for an international cemetery for those who died in the Gallipoli Expedition, and Greece both Western and Eastern Thrace.

The Straits also fell under Allied control, the northern coast of the Sea of Marmora, while under Greek sovereignty, was made neutral for nine miles inland, and fortification of Constantinople itself was forbidden.

Further, the unfortified zone of the Straits, open in peace and war for all craft, and neutral in time of war, with its navigation, regulation of port dues on a basis of absolute equality, regardless of port of origin, destination, or departure, ownership or flag, was placed under a Commission consisting of representatives of Great Britain, France, Italy, and Japan, of Russia and Bulgaria (when members of the League of Nations), of the United States (if willing to serve), and of Turkey and Greece—the last two having nominal sovereignty over the south shore and north shore, west of Constantinople, respectively.

How far have these conditions been modified by the Treaty of Lausanne (January 31, 1923)? First of all, be it remembered, the Turkey of 1924 is not the Turkey of 1914. She has lost all " rights and titles " over Syria, Palestine, Iraq, the Hejaz, the Arabian Peninsula, Egypt, the Sudan, Libya, and Cyprus. Her strength now lies in her Anatolian plains and highlands—the original home of the Ottoman Turk—and in the narrow European territories of her former Empire up to the boundaries of Greece and Bulgaria, accepted in 1915, and laid down by the Treaty of Neuilly (1919), as far as the River Maritza, inclusive of the enclave of Karagach.

Further, Turkey herself, and not the Allies, guarantees the freedom of the Straits. This implies the loss of strategic control, which means a great deal in the consideration of access to Rumania and an outlet for Czecho-Slovakia, which has no seaport. Absolutely free access from the

Ægean to the Black Sea is secured for foreign aircraft and warships, as well as for merchant ships, subject to limitation of numbers.

The possible danger of Russian domination in the Black Sea is provided against by the condition that whereas in peace time each country may send a force which is not greater than that of the most powerful fleet of the littoral power into that sea, in war, Turkey being neutral, this limitation disappears. When Turkey is a combatant, which is almost the inevitable condition, in case of hostilities involving these territories, then, whilst neutral fleets have the same rights as in peace, the allies and the enemies of Turkey would be respectively admitted or refused admission as if no arrangement existed upon the subject. In short, even if the attempt might once more be made to close the Straits against a hostile fleet, such a closure could never again be so serious as during the Great War.

On both sides of the Bosphorus and Dardanelles demilitarized zones have been created, while Turkey herself has been given an international guarantee of protection by the League of Nations for the safety of her capital and its adjacent territory, being permitted also to garrison Constantinople. Demilitarization also applies to Samothrace, Lemnos, Imbros, Samos, Chios, Nikana, and Tenedos. The Suvla Bay cemeteries have been retained by the Allies.

It has already been mentioned that the strength of the new Turkish Republic lies in Anatolia. The old Turkey was as remarkable as Russia for its minorities. A pre-war classification of its nationalities gave the number as 36. Some of these were lopped off by the Treaty of Sèvres, some, notably the Greeks and Armenians, have been deported or have diminished in numbers. The League of Nations is to assume the tutelage of minorities, whose interests are elaborately guarded by the Treaty of Lausanne. But new Turkey starts afresh on a definitely Turkish basis to govern a country of reasonable dimensions. In old Turkey it was as far from Constantinople to Mocha at the south-western extremity of Arabia as from Halifax

to Vancouver—approximately 2,500 miles. Outside of Anatolia there were almost no railroads, and centralized government was well nigh impossible.

The new country largely consists of the mountain-rimmed and desert highlands of Anatolia, including Konia and Angora, the former once the capital of Turkey and the meeting place of routes from every point of the compass. To this region migrated the Ottoman Turks from the Altai Mountains and the plateaux of Central Asia, supplanting, in the thirteenth century, the Seljuk Turks, who had come from Mongolia three centuries before.

It was in 1920 in this same region that the Turkish leaders revived and have kept alive the national sentiment. Within limited boundaries—the Taurus and the Anti-Taurus on the east, the Mediterranean on the west, the Black Sea on the north—with a comparatively small population of approximately 8½ millions, Turkey is now to work out a new destiny. She is laden with debt, her peasant population works with primitive tools and lives in mainly mud houses, she suffers from very poor roads, and she has a complete lack of modern towns for her markets. She cannot produce grain as cheaply as Rumania or Russia, on the other hand, she can supply tobacco, dried fruits, fine wool, silk and cotton. For many years her outlook must be essentially economic.

(3) British Relations with Powers in the Mediterranean.

In Chapter VI the value of friendly relations with naval powers holding strategic points along British lines of communication was emphasized. This friendliness is nowhere more essential than on the Suez-Mediterranean route.

The powers concerned are France, Italy, Spain, Greece. Of these, only the first twocan be called great naval powers.

Spain.—Spain crosses the Mediterranean to the African continent, and was interested, with ourselves, in the settlement of the Tangier problem. Furthermore, the unsettled condition of the Spanish zone of Northern Morocco, which requires an army of occupation of 80,000 men, radically effects Mohammedans under British jurisdiction. The only economic advantage to Spain in holding the zone with its

disturbed region of the Rif would seem to be connected with a possible tunnel across the Straits of Gibraltar as part of an extension of a Spanish European line to the Rio del Oro just south-east of the Spanish Canary Islands—not altogether disconnected from the Dakar—Pernambuco service mentioned in Chapter XIII. Spain also holds the naval base of the Balearic Islands, and her feeling for a *rapprochement* with Italy is founded on possibly the idea of a Latinized Mediterranean. The Mediterranean, however, is not a Latin lake, but the highway of the world's shipping.

Italy.—The European relations of Italy will be dealt with in Chapter XVIII. In Africa she possesses Libya, bounded on the east by Egypt and the Anglo-Egyptian Sudan, Eritrea on the Red Sea, and Italian Somaliland, a strip stretching from the turn of Africa south-west along the Indian Ocean. Between Libya and Egypt the boundary across the Libyan desert is still undefined.

All these colonies are arid and relatively poor and unimportant. Italian colonial expansion, apart from the purchase of Assab on the Red Sea, did not begin until 1885, when the harbour of Massowah, in the north of what is now Eritrea, was occupied. By 1889 Italian influence had spread southward, and by the Treaty of Ucciali virtual sovereignty over Abyssinia was claimed. Menelik, the King of Abyssinia, however, interpreted the Abyssinian version of the treaty in another fashion, and after acrimonious *pour parlers* war broke out, which ended in the crushing reverse of Adowa in 1906, and stopped Italian ambitions in this direction. Since that time Italy has been content with the development of her present possessions.

Libya (independent districts of Tripolitana and Cyrenaica) did not become Italian until after the Turco-Italian War of 1911-1912. It is inhabited in the interior by sedentary Mohammedan Berbers, and on the coast by nomadic Arabs. Both peoples have a considerable amount of negro blood in their veins.

During the Great War much of the coast was the prey of mixed enemy forces. In April, 1919, however, the Arab chiefs again recognized Italian sovereignty. Under the arrangements with France and Great Britain (1919)

as a result of the Treaty of London (1915), Italy has also been given some small territorial concessions on the eastern and western frontiers of Libya. The interior of Libya does not lend itself to railway or road construction, owing to the shifting sands. For a long time Libya can hardly hope to pay, or be a military asset to Italy, and is liable to absorb a fairly large Italian force for its pacification.

In the Eastern Mediterranean Italy also holds Rhodes, and a group of twelve islands, known from their number as the Dodecanese.

France.—The French possessions in the Mediterranean and in the Red Sea comprise :—

(1) The mandated territory of Syria.
(2) The Protectorate of Morocco.
(3) Algeria.
(4) Tunis.
(5) French Somaliland.

(1) **Syria.**—The coastal strip of Syria is bounded by the Mediterranean on the west, by Turkey on the north, by Iraq on the east, and by Palestine on the south. The Turkish boundary was settled by the Franco-Turkish Treaty of November, 1921, the other frontiers by the Anglo-French agreement of December, 1920. On the north-east, Syria is naturally shut off from the Anatolian plain by the Taurus range, and on the north, with its pass of the Cilician Gates, by the Amanus Mountains (the Syrian Gates). Similarly, the Lebanon separates it from Palestine and the desert from Iraq.

Syria was wrested from Turkey in the Great War and allotted to France as a mandated territory (Class " A ") by the Supreme Council of the Allied Powers at San Remo in 1920, a decision which was confirmed by the Council of the League of Nations in 1922. Though, prior to 1914 Syria was administered by Turkey, the Turk was virtually an alien in the land.

The population, 3 million people to 60,000 square miles, is composed of approximately 2,000,000 Mohammedans, 500,000 Christians (mainly Roman Catholic Maronites in the Lebanon), and 125,000 warlike Druses in central Syria and along the mountain valleys of the Lebanon.

The interests of France in Syria are mainly concerned with the silk industry and the railways. Except for the Hejaz line, every Syrian railway has been financed by French capital, and in like manner Frenchmen founded the silk factories of the Lebanon, from which France gets a million pounds of silk a year. The Lebanon, which has a population density of 160 to the square mile, has, since September, 1920, been autonomous. From the British point of view the value of the French occupation of Syria lies in the fact that a friendly nation controls what is practically a " buffer state." Moreover, in return for the right to buy a quarter of the oil piped in Persia, the British can build pipe lines through the French " sphere of influence " to the Mediterranean.

Much, also, of the Iraq trade is bound to filter through the transit land of Syria to the coast. Damascus, its capital, away from the sea, and not on a natural route, has always attracted the commerce of the Middle East.

(2) **Morocco.**—Morocco has been, since 1904, divided into three zones :—

(*a*) Tangier, which has recently (see Chapter VI) come virtually under French control.

(*b*) A narrow Spanish zone, south of Tangier.

(*c*) The French Protectorate of Morocco.

This French protectorate was acquired by a Treaty with Mulai Hafid, Sultan of Morocco, in 1912, after Germany had sent the gunboat *Panther* to Agadir, ostensibly to protect her commercial interests, actually to check French expansion in North Africa. The government of the Protectorate, with the French Resident-General acting as Foreign Minister to the Sultan, is one of the best examples in the world of good colonial government. The economic administration of the country is based on the policy of the " open door," which guarantees equal commercial and industrial privileges to all allied nations.

The chief ports of Morocco are Casablanca, Kenitra, and Mogador.

(3) **Algeria.**—Including the Sahara, Algeria is nearly four times as large as France. Its importance, however, is not commensurate with its size, as of its four regions :—

(i) The Little Atlas or Tell (coast, mountain, valley),

(ii) The Shat (intermediate plateaux of scanty streams and salt lakes),

(iii) The Atlas Mountains,

(iv) A second plateau, with intermittent streams, mud, and salt flats and desert,

only (i) and certain oases in the rest can be said to be inhabited.

The French came to the coast of Algeria in 1830, and fought their way into the interior by a succession of wars until 1905. Most of the people of Algeria are Berbers. At present France has a practical interest in Algeria, inasmuch as in 1922 her imports amounted to £80,000,000, and her exports, olives and olive oil, tobacco, wine, grain, hides, skins, horses, sheep, oxen, fruit, to over £50,000,000. These products, which must be carried in French ships, supplement French resources and feed French industries.

(4) **Tunis.**—Tunis was originally occupied by the French to prevent Arab raids on Algeria. Tunis is not nearly so settled as Algeria and Morocco, and certain tribes, notably the Nefret, Chaihia, and Senussi (on the Tripoli border) are always liable to outbreak.

The trade of Tunis is increasing every year.

	1917. £ *Million.*	1918. £ *Million.*	1919. £ *Million.*	1920. £ *Million.*	1921. £ *Million*
Imports	6	8	11	25	29
Exports	5	5	8	13	27
Total	11	13	19	38	56

(5) **French Somaliland** lies between Eritrea and British Somaliland, and is bounded on the west by Abyssinia. It is only a small country, by far the smallest in area and population of the three Somalilands, but its seaport, Djibuti, has secured most of the coastwise trade of Abyssinia. This, with the French interests in the main Abyssinian railway line (the Franco-Ethiopian Railway) from Djibuti to the capital (Addis Ababa) strengthens her position in that country, standing alone with Liberia in not being associated with one of the Allied Powers.

(4) British Relations with Egypt and Abyssinia.

The key to British relations with Egypt, with Iraq, with the Arabian peninsula, is her position with regard to that portion of the eastern world which professes the creed of Mohammed.

Mohammedanism is a political as well as a religious belief. Although its adherents are distributed from Nigeria to the Philippines, every one of the 250 million followers of the Prophet, who turn every day in the year towards the holy city of Mecca, is a fanatical preacher of his faith to a prospective convert.

The heart and centre of the Mohammedan realm lies on the eastern side of the Red Sea. On the western side of the Red Sea is Egypt, which has sometimes been called the " wasp waist " of the Commonwealth. At the northern end of the sea is the Suez Canal, on the direct route to India from the whole Mediterranean region and from Great Britain. Flanking this route, on the north side of the Indian Ocean, are in geographical order the Arab States of the Arabian peninsula, Iraq, Persia, Afghanistan.

The following table shows the number of Mohammedans under British influence in the Near and Middle East.

	Population.	*Mohammedans.*	*Percentage.*
India	325,000,000	66,000,000	21
Mesopotamia (Iraq) (mandated territory)	2,850,000	2,640,000	93
Palestine and Transjordania (Kerek) (mandated territory)	770,000	600,000	78
Egypt (sphere of influence) ...	13,550,000	11,650,000	86
Anglo-Egyptian Sudan ...	5,850,000	5,500,000	94
Arabia (Kingdom of Hejaz, Emirates of Nejd, and Hasa, Principate of Asir, Sultanate of Oman (spheres of influence), Sultanate of Koweit, Protectorate of Persian Gulf Islands (protectorates)	3,950,000	3,950,000	100
Total	351,970,000	90,340,000	25·6

For Great Britain all these lands and the eastern entrances to the Mediterranean Sea hang together by their common association with her main road to the East and the presence of this Mohammedan element.

With the break-up of the Russian Empire, and the present concentration of a narrowed Turkey in her economic problems, the relations of Great Britain towards the Near East and the Mohammedan world have changed.

The aims of Turkey were always a serious factor in dealing with the Mohammedan peoples of the Commonwealth, not only in the Near East, but as far as Zanzibar, British East Africa, South Africa, and India, and the political aims of Russia were added to the religious ambitions of Turkey until the Russian "sphere of influence" was limited in 1907 to the lands north of an imaginary line drawn from Kifri in Iraq, south-east to Yezd, and thence north-east to a point some 150 miles due south of Merv.

Of vital importance in regard to British interests in Egypt, and to the field of French and Italian expansion in north Africa, are the powerful Mohammedan secret societies or "Confraternities" scattered from Morocco to Baghdad, to which practically every adult male Moslem belongs, and the influence of the Mohammedan University of El Azhar stationed in Cairo. The secret societies are of different kinds. Some of them have become missionary agencies, some have devoted themselves to poverty and good works, some have amassed wealth which they have spent on small military expeditions on the borders of the great desert of the Sahara, in the Anglo-Egyptian Sudan, in Libya, in French Equatorial Africa, and elsewhere.

The most powerful of these societies is the Senussi, which has existed for 80 years, and whose founder, claiming to be a direct descendant of the Prophet, settled down in Cyrenaica, well out of reach of Turkish control but close to well-marked caravan routes. The Senussi were essentially traders in slaves, and resented any interference with their business. Consequently, when in 1911–1912, after the Turco-Italian War, Italy occupied the northern seaports of Libya and blocked this traffic, the Senussi, aided by the Turks, successfully resisted the Italian advance into the interior of Cyrenaica. On the outbreak of the Great War the Senussi drove the Italians even nearer to the coast, and in 1916–1917 the Senussi leader, with German support, ostensibly to make himself sovereign of the Mohammedan world, invaded Egypt at three points, until

he was effectively crushed in February, 1917, at the Battle of Sollum.

The stronghold of the Senussi is the oasis of Kufra in the heart of the Sahara, almost 500 miles west of the Nile, from which their influence radiates to Libya (Tripoli) in the north, to the Sudan and Darfur on the east, and as far south as Northern Nigeria and Lake Tchad in French Equatorial Africa.

Egypt is an independent kingdom under a Khedive or King, with a population of approximately 13 millions, and an area of half a million square miles, situated in that part of the valley of the Nile which is below 3,000 feet as far south as Akashe above Wadi Halfa, in lat. 22° S., and including the Sinai peninsula, the oases and the " Land of Midian " in Arabia.

British influence in Egypt really began after the completion of the Suez Canal, in 1869, though there was both French and British military occupation during the Napoleonic Wars. The rule of the country by the Turks, who had conquered it in 1517, had always been ineffective, and when, in 1875, the then ruler of Egypt, Ismail, sold his shares with a controlling interest in the Suez Canal Company to the British Government, the British and the French, from both of whom successive rulers of Egypt had borrowed only to accumulate a huge debt, established a condominium, known as the Dual Control (1876–1882). This control was resented, but the cry " Egypt for the Egyptians " was not really raised until all the loans had been squandered. The resentment finally broke out in rebellion under Arabi Pasha, an army officer. The British—without the assistance of the French, who were unwilling to send a military force—undertook the responsibility of quelling the rebellion, and, on the defeat of Arabi, became financial " advisers " to the new Egyptian Government. No sooner had Arabi been crushed, than there was further trouble, this time in the Sudan, where a fanatical leader called the Mahdi defeated the Egyptian troops, massacred General Gordon and about 11,000 men at Khartum in 1885 and for about twelve years held the whole region in his grasp. Not until 1898 were his forces finally annihilated by General Kitchener at

Omdurman. As a war measure both Egypt and the Sudan were annexed to the British Empire in 1914, with the status of a "protectorate." In 1920 the Treaty of Sèvres between Turkey and the Allied Powers recognized this protectorate.

In the same year a mission, under the chairmanship of Lord Milner, was sent out to Egypt, and a tentative agreement was drawn up between representatives of Great Britain and Egypt, under which Egypt obtained "independence," while Great Britain reserved the following rights :—

(1) To guarantee Egypt from outside aggression, and retain access to Egyptian territory in time of war.

(2) To maintain a British garrison in the Suez Canal zone, which thus becomes a Military Reservation.

(3) To control the foreign policy of Egypt, and represent Egypt in countries where no Egyptian representatives are appointed.

Finally, in 1922, a new constitution was drafted, under which Egypt became a "sovereign state, free and independent, its monarchy hereditary, its Government representative."

British interest in Egypt is primarily interest in the Suez Canal. But there is another aspect of Egypt. Most of the people of Egypt live on the Delta of the Nile, or on narrow strips of fertile land on either side of the river, for "the Nile is Egypt, and Egypt is the Nile." These small farmers—the fellahin—are not politically minded like the educated and wealthy class of the towns, but they provide 13 per cent. of the world's cotton, and the production of this staple crop has been improved and increased beyond measure by British expert advice, and by irrigation schemes financed by British capital and set in operation by British engineers. Four-fifths of this cotton, which has a fine long staple almost as good as the American product, far superior to that of India, is taken by Great Britain, which in turn sends Egypt her coal and her manufactured goods. Grain, Egypt, with her three crops a

year, does not need, and meat she gets in small quantities from Australia and New Zealand.

Approach from the fertile Nile valley to the Mediterranean, apart from the river route and the canal roads, is supplemented by railways from El Obeid to Sennaar, and thence through Khartum to Wadi Halfa and from Assouan (Shellal) north to Cairo, whence lines run to the artificial harbour of Alexandria and to Ismailia on the Suez Canal. There are also short lines from Wadi Halfa to Kerma, from Abu Hamed to Merowi, and a longer railway from Berber, where the Atbara joins the Nile, through the Nubian Desert to Port Sudan, the best of the few poor harbours on the high and practically unbroken Red Sea coast. The people of Egypt are (1) Egyptians—mostly Mohammedan "fellahin"; (2) Bedouins; (3) Nubians, half Arab, half negro.

South of Egypt proper, extending from Wadi Halfa to the boundary of Uganda in the region of the Great Lakes, lies the Anglo-Egyptian Sudan, which is jointly administered by both Great Britain and Egypt. The British position in the Sudan was defined by the Convention of July 19, 1899, under which Great Britain, "by right of conquest," became entitled to a "share in the settlement and future working and development of the country." Under the Egyptian constitution of April, 1922, in accordance with the Allenby Declaration of the same year, the Sudan was treated as a reserved subject, until such time as "it may be possible by friendly discussion and friendly accommodation on both sides to conclude agreements thereto."

Continuance of British interests in the Sudan is necessary because :—

(*a*) The "fellahin" is not interested in the Sudan.
(*b*) To political Egyptians the Sudan is distasteful.
(*c*) The Sudanese dislikes the Egyptian.

The value of the Sudan to Great Britain lies in its ability not only to grow cotton but the best kind of cotton. The new areas recently adapted to cotton-growing will—it is prophesied—by 1938 produce a million bales of cotton, and each year sees a remarkable increase in the output.

The growth is to be brought about in the Kordofan area by canalization on an intensive scale, but the Sudan has, also, especially in the south, the advantage of rainfall. For while the mean annual rainfall of Alexandria is only $8\frac{1}{2}$ inches, and in Cairo even lower, the southern parts of the Sudan receive on an average over 40 inches of rain between May and September.

The whole country lies partly in the basin of the Nile, and partly in the interior drainage basin of the Sahara.

The population of 4 millions are partly Arab and partly negro.

The length of the Sudan, whose northern boundary is 600 miles in a straight line south of the Nile mouths, is 1,500 miles.

A railway runs through the Sudan from Wadi Halfa to its capital, Khartum, up the Blue Nile to the cotton-growing district of Sennaar, and thence back to the White Nile and westward to El Obeid, the centre of Kordofan.

A further line, apart from the Berber—Atbara—Port Sudan —Suakin line, is now being built from Thamiam on the road to Kassala, 217 miles south, and 337 miles from Port Sudan. This will open up 100,000 acres of the Gash River area.

The Sudan is connected with Uganda (Gondokoro) by an intermittent steamer service along the White Nile.

There is also telegraphic communication from Cairo southward through Khartum to Entebbe (Uganda) and Mombasa (Kenya), which is connected up by way of Katanga (Tanganyika Territory) with Salisbury in Northern Rhodesia, and so with the Union of South Africa.

West of the province of Kordofan lies Darfur. Darfur remained semi-independent until 1916, when the Sultan, Ali Dinar, rebelled and was conquered. From that time Darfur became the fifteenth province of the Sudan, and its frontier with Wadai in French Equatorial Africa was definitely settled. This enables both nations to proceed to the pacification of more remote peoples, the British operating from Khartum, and the French from the forts along the Shari River, the principal feeder of Lake Tchad.

The Sudan is safe on the west, except from small tribal incursions, owing to the great Libyan desert. On the

south the Sudan is bordered by Abyssinia or Ethiopia, as it should be called, from which there are occasional slave and ivory raids. The government of Abyssinia is a difficult problem, as the whole country is steeped in mediæval tradition and conservatism, and is dominated by small local chieftains or "rases," who demand almost despotic power within their own dominions. Ethiopia has recently become a member of the League of Nations.

(5) British Relations with the Arabian Peninsula.

British power in Arabia before 1914 was exercised chiefly on the borders of the country, and in places accessible to naval vessels. With the advance of the Turkish armies on Egypt by way of Syria and Palestine, British forces had to win and hold the friendship of the Arabs. We now stand, therefore, in a different relationship to Arabia than before the Great War.

Arabia is a huge desert peninsula, with only one railway, with no good roads or harbours, bordered on the east side by a broad and almost impassable desert.

The following approximate distances give an idea of the size of the country :—

Aden to Muscat (Gulf of Oman)	1,250 miles.
Aden to Medina	900 miles.
Akabah to Muscat	1,600 miles.

The peninsula is divided up into well-marked physiographic units, governed on a tribal basis, and until recently no white men—even explorers—had penetrated into the desert interior. In the heart of Arabia the population is concentrated along the valley floors of a drainage system associated with a highland backbone known as the Djebel Tawaik, a ridge running north and south for 400 miles, with an average breadth of 20 miles.

On the west it descends 400 to 600 feet in a regular steep scarp, on the east it goes down by broad steps to the desert, on its southern, northern and western sides are desert tracts forming a great moat, and to the south-east is a broad area known as the Empty Quarter, which has never yet been crossed by other than an Arab.

This region is known as the Nejd, and its highland tribes, who are known as the Wahabis, have never yet been under

THE MIDDLE EAST
Distances given in Miles
Railways
Scale
Miles
50 0 100 200 300
TURKEY
Konia
Nisibin
Aleppo
Mosul
CYPRUS
Kirkuk
R. Euphrates
R. Tigris
MESOPOTAMIA
Homs
Tripoli
Beirut
SYRIA
Damascus
Ramadi
Baghdad
PERSIA
MEDITERRANEAN SEA
Haifa
El Deraah
Lydd
PALESTINE
KERAK
Amman
Amara
Cairo
Basra
Mohammareh
850
820
ARABIA
KOWEIT
EL HASA
PERSIAN GULF
GULF OF OMAN
Behrein Is
EGYPT
RED SEA
EL HEJAZ
1450
Medina
WAHABIS
Muscat
OMAN
TRUCIAL COUNTRY
Mecca
ANGLO EGYPTIAN SUDAN
Port Sudan
Suakin
1200
Kuria Muria Is
YEMEN
HADRAMAUT
ERITREA
Hodeida
Sanaa
ARABIAN SEA
Mocha
Sheikh Said
Aden
Perim Is
GULF OF ADEN
ABYSSINIA
Djibuti
FRENCH SOMALILAND
Berbera
ITALIAN SOMALILAND
BRITISH SOMALILAND
Military Geography

foreign control. Their ruler, Ibn Saud, is friendly to Great Britain.

On the western border of Arabia are the two countries of the Hejaz and Yemen. It may be mentioned, in passing, that there is a certain amount of trade between Yemen and Koweit on the Persian Gulf through the oases of Nejd and Yemen, coffee being exchanged for the tea, sugar, and other commodities of the Gulf.

The Hejaz, which means " barrier," in reference to the wall of high mountains on the edge of the tableland, is a country 700 miles long and 150 miles wide, lying between the highlands of the Arabian plateau and the Red Sea coast. It is the most important of the Arabian kingdoms, owing to the fact that it contains Mecca, the city of the Prophet Mohammed, and the goal of all good Mohammedans, and Medina the terminus of the only railway in the peninsula.

It is from the Hejaz that emanates the movement for Arab unity, which would express itself in a confederation of Arab states, extending from Iraq to Syria and from Syria to the Red Sea.

In 1916 certain learned religious in Mecca went so far as to proclaim Hussein, ruler of the Hejaz, King of the Arab Nation.

The difficulties of unity are fourfold.

(1) The physical geography of the great Arabian desert, which widely separates the various tribes, is itself a serious barrier.

(2) The Hejaz is small, and possesses little military power.

(3) It would be difficult to bring under one control and hold together the Sheikhs of the desert tribes of the interior, or the rulers of Yemen and Asir farther south along the coast, not to mention the Wahabis of Nejd.

(4) The ambitions of Mecca as the capital of the new state conflict with those of Damascus, which lies within the French mandated territory of Syria.

Any Arab state would thus have to confine itself to the territory south-east of coastal Syria, exclusive of Homs,

Damascus, Hama, and Aleppo, south of the boundary line between French and British spheres laid down by the Anglo-French Agreement of December 23, 1920.

British friendliness towards the Hejaz is accentuated by the fact that Abdullah and Feisul, nephews of Hussein, the present King, are rulers respectively of the mandated territories of Transjordania (Kerek) and Mesopotamia (Iraq).

The Principate of Asir, which is about 230 miles wide by 150 miles broad, lies, like the Hejaz, between a rugged mountain wall and the coast. Its fertile valleys are famous for their dates and coffee, which are exported through its one small port of Ghizin.

The Imamate of Yemen is the small country in the southwestern corner of the Arabian peninsula, whose southern boundaries are coterminous with those of the Aden Protectorate. Near the coast the country is barren—at the edge of the high tableland, with larger rainfall, there is greater production. Its principal port is Hodeidah. Yemen is the most isolated of the Arabian principalities.

On the Aden coast in southern Yemen is the port of Sheikh Said, which the French have claimed for over half a century. It lies directly opposite Perim, and ships going east pass between it and the island. If fortified, it might become a distinct menace. As it is, it just prevents absolute protection of the eastern route. This would be secured if Sheikh Said, like Sokotra, were in British hands.

East of the port of Aden is an undefined area known as the Sultanate of Makalla, which is a British protectorate. Beyond this protectorate lies Oman, one of the most advanced districts of Arabia, with a population of half a million, and a good harbour with considerable trade to India and East Africa at Muscat.

There is a good deal of illicit smuggling of firearms into this region, over which Great Britain, as over the small tribal states of the Hadramaut, has a virtual protectorate.

The Kuria Muria and the Bahrein Islands in the Persian Gulf are actually British, as also is Basidu, at the west end of the island of Kishm, opposite Bandar Abbas.

The most easterly portion of Arabia is known as Al Hasa. For a long time this district, especially the coast of the Katar peninsula on the Gulf of Hormuz to the north-west of the head of the Persian Gulf, was the haunt of pirates.

Piracy is now checked, the peace of the Gulf maintained, settlement reached on domestic quarrels and disputes with British, Turks, or Persians, and slavery kept in hand by agreement between the principal tribal sheikhs of the region—known as the Trucial League—and the British political agent at Bushire.

All Arabia is, as may be seen, a sphere of British influence. This relation to Arabia south of a line from Yemen to Aden, and north-east to Katar was recognized by Turkey in 1909. Apart from its practical encirclement by the mandated areas of Palestine and Mesopotamia, only a general rising of the Mohammedan peoples can now endanger this portion of the sea route from the Suez Canal to India.

(6) British Relations with Mesopotamia (Iraq).

Iraq is a narrow tract of land about 143,000 square miles in area, and containing an approximate population of 2,850,000, watered by the Tigris and Euphrates, stretching north-west from Fao on the Persian Gulf to a point north of Mosul.

It is bounded on the west by Persia (the Turco-Persian Agreement of 1914), on the south by the Persian Gulf and the British protectorate of Koweit, on the north-west by French Syria (the Franco-British Convention of December 23, 1920, in modification of the Sykes-Picot Agreement of 1916), and on the north by Turkey. The northern boundary was one of the main points under discussion at the Lausanne Conference, Turkey being anxious to bring her frontier down to the plains, and include Mosul.

Mosul, or " Central Gates," lies at a critical point—near the high pass leading up into Armenia. In a semi-circle to its north lies Kurdistan, the home of the semi-nomadic Kurds, related to the Persians in race and language, migrating each year with their flocks from their own high valleys into the Mosul—Erbil plain for winter grazing, and often coming into conflict with the settled population.

Moreover, Mosul and Baghdad are economically complementary. The natural flow of trade is from Mosul southward to Baghdad and the Persian Gulf by way of the Tigris, and the cheap bulky exports of the Mosul district, wheat, barley, wool, hides, skins, and marble, would not pay for export were it not for the economical means of transport down the river.

Naturally, peace is desired along the headwaters of the Tigris and Euphrates, if only for the proper control of the water supply which irrigates Iraq, and the frontier is therefore to be delimited within nine months after the signature of the Treaty of Lausanne by separate negotiations between Turkey and Great Britain.

The Iraq claim will probably include the Tigris valley up to the Khabur, 70 miles north-west of Mosul, thence north and west to the Greater Zab and on to the Persian border, west of the south end of Lake Uramiah, and will take in the warlike Assyrians, who may be as useful to Iraq in the future as they have been to Great Britain in the past, as well as the Amadia valley, which might well be the base of an enveloping movement, threatening Mosul from the west and Erbil from the east through Rowanduz.

Rowanduz is at a vital crossroads. Eastward a road runs to the Persian frontier along the Russian line of approach in 1916, northward is the great open plain of Deir-i-Hair, and the way to Van or Urmia. Moreover, westward Erbil is reached through the mountain gorges. At Rowanduz the sea meets the great semi-Asiatic land power of Russia, and the Rowanduz mountains are a watershed between the Pamirs of that region.

Strategically, Iraq needs a strong northern frontier. Her southern frontier is exposed, and on the east Persia is once more a military nation.

Apart from this vitally important hill-country to the north-east, Iraq consists of the great plains between the Tigris and the Euphrates, the country between the rivers being divided into two parts, the alluvial irrigated plain from Basra to Baghdad, densely populated except on the marshes, especially at the tails of the canals, and the more undulating " Island " or " Jazireh " of the north.

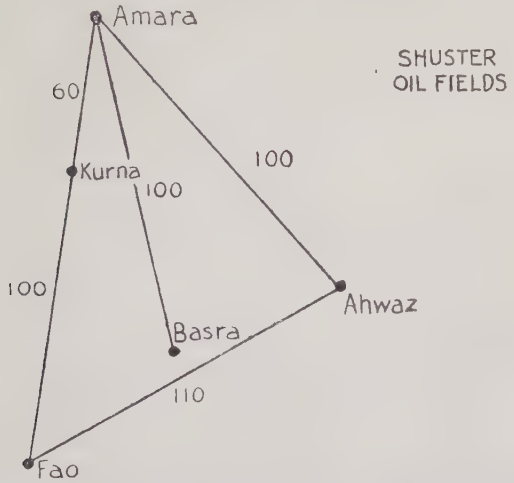
Iraq was transferred to Great Britain by mandate from the League of Nations, and in accordance with the terms of the mandate, has now become an independent kingdom, with British advisers and British Air Force protection.

The presence of Great Britain serves a threefold purpose.

(1) India is covered from attack by way of Persia and the Persian Gulf.

(2) The line of future airways and railways passing from west to east and from north to south, whether from Hamburg to Singapore or from Petrograd to Cape Town, is held.

(3) The Ahwaz oilfields, one of the great sources of Imperial oil supply, with the refineries of Abadan, owned by the Anglo-Persian Oil Company, are protected. This protection will be secured by the holding of the Shatt-el-Arab or mouths of the Tigris and Euphrates, Basra, and the river as far north as Kurna, 100 miles from Fao, or possibly Amara, 60 miles farther north, and the end of the deep water at the junction of the Tigris and the Euphrates and the adjacent region.



Ahwaz lies on the Karun River 50 miles north-east of Basra, and the pipe line from the Shuster Oilfields 50 miles to the north passes through it, as does the Anglo-Indian Telegraph line to the Russian frontier. It is also on the railway line

from Basra to Quraitu on the Persian frontier, 130 miles in length. Basra is also connected by a branch line on this same railway to Kifri, and with Baghdad (300 miles). Beyond Baghdad the Iraq Railway, which from July 1, 1923, became a Department of the Civil Government, continues to Shergat (200 miles), but is broken between Shergat and Mosul (70 miles), which the Baghdad Railway does not reach by 110 miles at Nisibin.

Extensions are being pushed forward from Nasiryeh to Kut, to make an alternative loop from Basra to Baghdad, and by way of the Hindie Barrage to Kerbela to catch the pilgrim traffic and the grain of the Euphrates valley. With a short line (7 miles) also into Khanikin city, the Persian pilgrim and merchant is better catered for.

The political status of Iraq really began with the acceptance, through a referendum on August 19, 1921, by 96 per cent. of the electorate, of Emir Feisul, third son of Hussein, the King of the Hejaz, as their King.

In 1922 this was followed by a treaty (modified later by a protocol) under which Great Britain retains her forces and advisers in Iraq for a maximum period of four years from the date of the ratification of peace with Turkey, that is to say, to August 23, 1927, or until such time as Iraq becomes a member of the League of Nations, unless the Iraq Constituent Assembly, elected in September, 1923, chooses to reject the treaty, in which case Iraq is to be left to her own resources. The final stage in constitutional development was the passage of the Organic Law providing for a limited monarchy and a responsible government on the Egyptian model.

The dangers of Iraq are not few. There is, as we have seen, the question of the delimitation of the frontiers. There is also the matter of peace with the restless tribes on her boundaries. There are Kurds and Bakhtiaris in the north, Wahabis on the east. Her rich alluvial basin is bordered on every side by tablelands and mountains inhabited by restless, unruly, fanatical, nomadic Mohammedans, who have overrun the basin time and again, and are radically different from the Arabs settled on farms or in towns.

(7) British Relations with Persia.

On the east of Iraq lies Persia. During the elections for the Constituent Assembly, Persian religious leaders of the religious confraternity of the Shiah had to be deported for issuing a proclamation (or Fetwa) excommunicating anyone who voted.

The Shiah are fanatical Mohammedans, the Sunni, to which most of the Arabs and the Mohammedans of India belong, more conservative and orthodox.

It is in Persia that the Shiah influence is strongest. The Sheikh of Mohammerah, ruler of the Arabistan province of Persia, whence the oil comes to the Abadan and Swansea refineries, and who, in 1921, was ambitious to become ruler of Iraq, is a Shiah.

At one time it seemed likely that British influence in Persia would become paramount, and, in August, 1919, a Convention was actually drafted and signed guaranteeing to Persia :—

(1) British advisers.
(2) British help in military personnel and supplies to preserve order in Persia and guard the Persian frontier.
(3) A British loan.
(4) The building of railroads and other means of transport to extend trade and to prevent famine.
(5) A joint British-Persian Committee of experts to revise the customs tariff.

This Convention, however, was never ratified. The British Financial Adviser left Teheran in 1921, in the same year the South Persian Rifles were disbanded, and in the autumn of 1922 a group of American advisers reached Persia.

To the Commonwealth the importance of Persia, apart from her oil resources, lies in the fact that she is on the highway from the west to the east, and, unlike Iraq, is open to the advance of the power that controls the northern steppes.

Much of Persia is high mountain and arid desert. Her 10,000,000 people mainly live in scattered groups without cohesion, away from the few railways and decent roads.

Across Persia from north to south or from east to west there is no great line of railway. Before the Great War Russia was planning a Trans-Caucasus line to the head of the

Persian Gulf, but the Russo-British Agreement of 1907 blocked this, and secured to Great Britain her control of southern Persia and the outlet of the Persian Gulf, which enabled her navy to prevent the landing of an expeditionary force at the head of the Gulf.

8) British Relations with Palestine and Transjordania (Kerek).

From a strategic point of view the British occupation of Palestine is not of great value, except in so far as it gives a prior right to hold this region, if necessary, with troops. The mandate for the country was accepted mainly from philanthropic motives.

This mandated territory has been divided into two parts :—

(*a*) Palestine proper.

(*b*) Transjordania or Kerek.

(*a*) *Palestine proper* is, in accordance with the statement made by Earl Balfour in November, 1917 (The Balfour Declaration), to become the "National Home for the Jews." Transjordania (or Kerek) is part of the Syrian kingdom of Feisul, which, when he left Damascus, was taken over by his brother, Abdullah, to prevent it falling into anarchy. Though included in the sphere for which the High Commissioner of Palestine is responsible, it was declared by the League of Nations in September, 1922, to fall outside the provisions of the Palestine mandate, and is, in course of time, to become an independent Arab state, by agreement with Great Britain, subject to approval by the League of Nations. The terms of the agreement were not to be announced until the conclusion of the peace with Turkey, who, under the Treaty of Sèvres, gave up all rights to Palestine and the adjacent territory.

The boundaries of Palestine are thus, on the west, the Mediterranean ; on the south, Egypt and the Hejaz beyond a line running from just west of Rafa to east of Taba on the Gulf of Akaba ; on the north the French mandated territory of Syria ; on the west the desert and Iraq.

The frontier between Palestine and French Syria was delimited by Sir Mark Sykes and M. Picot in 1916 (the Sykes-Picot line), but this line has now been changed for a new frontier established by a tri-partite agreement between France, Great Britain, and Italy in August, 1920. Under

this agreement Italy, while obtaining no actual territory secured recognition of her special interests in southern Asia Minor, as did France in Syria.

Provision was made for the capitalization on terms of equality by British, French, and Italian bankers of the Baghdad Railway and other lines.

The coal basin of Heraclea, on the north coast of Anatolia, east of the Bosphorus was to be exploited by Italy, with British and French reservations.

The present Anglo-French boundary starts from the ill-defined Iraq-Turkish boundary at Djour-ibn-Omar, curves round to Rumilan Keui, and then along a straight line runs south south-west to Abu Kemal on the Euphrates River. From Abu Kemal it crosses the desert directly west south-west to Intan, and from Intan it goes west north-west to Deraa, whence it follows the line of the river to the lower end of Lake Tiberias, passing up the centre of the lake and along the "wadi," and keeping east of the Jordan valley through Burias and El Mutallah. It then turns south south-west until it reaches the "wadi," which it follows to the Mediterranean at Ras-en-Nahira.

Palestine contains at present a population of 700,000, of whom barely 80,000 are Jews, the rest being mainly Mohammedan Arabs, Druses, and Ottoman Turks, with a small sprinkling of Christians, mostly belonging to religious orders associated with the Holy Places.

The question of the occupation of Palestine by the Jews, which is the aim of the World Zionist organization, is complicated by the presence of a large number of Arabs, whose rights are not to be prejudiced by the Balfour Declaration. The policy of the British Government, acting through a High Commissioner, has been :—

(*a*) To secure equality of treatment for all the population elements.

(*b*) To permit the Jews to return to Palestine only as the development of the country guarantees the normal absorption of immigrants for rising industries and reclaimed agricultural lands.

A basis for Jewish establishment exists in the presence of a number of Jewish agricultural colonies, generally

established within the last 50 or 60 years, often as a result of the pogroms of Russia.

These farm colonies take up approximately 10 per cent. of the cultivated area of Palestine, and produce oranges, olives, grain, dairy produce, vegetables, and poultry, while there is an experimental station at Haifa. The difficulty is, however, that the Jews in other parts of the world have been pre-eminently successful, not as agriculturalists but as traders and financiers.

The heart of Palestine is the plateau of Judea, flanked on either side by lowlands. On the west is a fertile, well-watered coastal plain, 100 miles long and about 15 miles wide. The eastern margin is abrupt, and runs down very steeply to the Gihor or flat-bottomed depression in which are the Jordan and the Dead Sea, the latter more than 1,200 feet below sea level. This scarp is known as the Wilderness of Judea, and is a rocky belt of land with steep valleys, a barren, waterless country, the home of nomad Bedouin Arabs. Eastward beyond the Gihor is the Syrian desert, broken in three places by tracts of higher and better watered country.

Ordinarily the plateau of Judea has enough rainfall for limited agriculture, with occasional droughts. On the east the rolling desert is grassy on the edge of the plateau, but parched farther east.

In years of drought the nomad Arab from the desert brings his flocks right up to the edge of the settled lands. Only in the centre of the plateau are broad fields and fertile valleys. Here are the principal towns—Jerusalem, Bethlehem, and Hebron, and here, though the population is small, it is dense (over 100 to the square mile).

By striking contrast the Negeb, south of the plateau, is a desert land, sparsely covered with a few small villages dependent upon their wells.

The coastal region has a rainfall of more than 30 inches a year, and except in the dry months of summer, is rich in verdure.

The great stumbling block to development is the lack of water. A water scheme for North Palestine, by the division of the waters of the Litani River and its tributaries, has been mooted.

The Litani watershed, however, is now (since 1920) in French Syria.

(*b*) *Transjordania* (*Kerek*) includes the Hauran, Gilead and Moab. The Hauran is the most important part of the transition country, lying east of the Dead Sea depression between Palestine proper and the Syrian Desert. It is a plateau rising to 2,000–3,000 feet above the sea, and though it has few streams, it is sufficiently well watered to have wheat fields and pastures of wide reputation throughout the East. It is linked up with Haifa by railroad.

The region of Gilead lies south of the Hauran. Its summits rise to 4,000 feet, and support evergreen, oak, and other trees, while its valley floors and adjacent plains are watered by springs, and have orchards and vineyards and occasionally fields of wheat and barley.

Through this area run the main caravan routes, and here, also, are the populous cities and the ports.

The agricultural possibilities of Palestine are of extreme interest in a new country, which has practically no mineral deposits. Its climate and soil are so varied that plants have become adapted to a wide difference of temperature and rainfall.

In the hot Jordan valley the olive grows at 850 feet below sea level in Upper Galilee, or at 4,000 to 5,000 feet on Hermon and the Lebanon, where it freezes in the winter. Figs are grown in Upper Galilee where the population is dense and labour cheap, but, as export is difficult, like the grapes, they are sold chiefly to the Bedouins on the edge of the desert. Its chief wealth, however, lies in its herds.

Moab, to the south, is the last of the line of heights east of the Jordan, and the outpost of the agricultural lands on the edge of the Syrian desert. Sheep and cattle live in great droves on the upland pastures, and find water on the canyon floors at scattered springs. It is also a land of agriculture, though subject to periodic raids.

Palestine and Iraq are joined up by the military airway from Cairo (Heliopolis) to Baghdad with aerodromes at Amman and Kasr-el-Azrak, and also by a motor service organized by Mr. Norman D. Nairn. The usual journey by sea from Port Said by way of Suez, Bombay, and Basra

takes 16 to 17 days, but under the new motor service Baghdad is within 60 hours' land journey of the Mediterranean, and the time of transit for mails between London and Baghdad is 8 days.

The railways of Palestine are as follows :—

(1) The main line to Egypt : Haifa—Tulkeram—Lud—Rafa—Kantara.
(2) Rafa—Beersheba.
(3) Jaffa—Jerusalem.
(4) Haifa—Afuleh—Lemakh.
(5) Haifa—Akka.
(6) Afuleh—Tulkeram.

CHAPTER XV.

The Problem of the Pacific.

The history of the Pacific Ocean is a reflection of the history of the great trading powers. The chapters in the strategical geography of that ocean are closely related to the general conditions of diplomacy and war in other parts of the world.

The commercial value of the Pacific, and of its bordering countries, within the limits of geographical knowledge, was recognized from an early stage in history. But its exploitation was not possible until the sea had been conquered. The wealth of the Far East could not be controlled by Europe in any appreciable quantity until a better route had been discovered than the long and difficult land way.

The rest of the world was excluded from Asia until the sea had become a link and not a barrier. We owe our first knowledge of the Pacific, with its wealth and its problems, to Vasco da Gama and his indomitable Portuguese successors. Of these explorers, Pinto was the first to reach Japan from the south and west (1543).

Close behind the Portuguese came the Dutch and the Spaniards, the latter soon operating and maintaining an annual trade service from the Far East to Mexico. The record of the Acapulco or Manila Galleon is the story of Spanish success and failure as a colonizing power. But within a short while Japan and China closed their doors, and the focus of activity turned to south-eastern Asia, for, even when Australia and New Zealand were discovered, they were reckoned of no account, and the many islands of the vast outer Pacific were regarded merely as stations for the supply of food and water to wandering sailors, though many an island has a tradition of "white men coming up from the sea."

The subsequent chapters in the political situation in the Pacific always indicate the alteration of political balance in Europe. At the beginning of the nineteenth century the old powers were still in possession, some with lessened authority, but new powers had come into vision. As Portugal had declined, so had her vast territories shrunk to mere footholds, at Goa and elsewhere in India, and at Macao in China. The Dutch, though driven out of South Africa, still retained a great part of the East Indies. The position of Spain in the Pacific was unchanged, with the Philippine and Ladrone Islands still in her hands. Russia, chiefly as a result of Behring's expeditions, had crossed from her mainland into Alaska, but was held back by her primitive commercial organization and the distance and extent of her Siberian possessions. Russian development of Alaska and Russian penetration of the field of eastern trade, marks time with the coming of the railway era, and the building of the Trans-Siberian line through Northern China.

Another new power besides Russia had also come into the Pacific. With her *flair* for colonization, and with the assistance of her navy, with shrewd foresight England had learnt to help the great trading companies that were to build up her Eastern Empire. Though India was her chief prize, the power of her merchants was felt in every part of the vast trade region of the Pacific.

The latter part of the nineteenth century witnessed the arrival of yet four more powers—France, Germany, The United States, and Japan—into this Imperial competition; the closing years of the century the elimination of Spain.

France came slowly and with reluctance, and only won fragments here and there until her seizure of Indo-China.

Germany, who followed later, when much of the Pacific was already in the hands of contending powers, was thus limited to relatively poor and widely separated islands beyond the rich empire of Malaya. Her object was first of all commerce, secondly, the extension of the German Empire. Later, the Pacific Islands were regarded as valuable naval bases from which to set forth and acquire new territories. Germany's colonial activity in this region began with the establishment of cotton plantations in Samoa during the cotton famine that succeeded the American Civil

War. These plantations, originally the private enterprise of Godeffroy, a Hamburg merchant, were later subsidized by the German Government. Samoa, however, contained Pago Pago, an American naval base since 1839, and conducted a fairly vigorous trade with Australia and New Zealand. Consequently, after a conference in Berlin, the powers concerned provided in the Berlin General Act of 1880 for a condominium, which lasted until 1899, when Samoa was partitioned, Tutuila going to the United States, Upolu to Germany, and Savaii to Great Britain. The same year Great Britain surrendered Savaii to Germany in return for concessions in Tonga and the Solomon Islands. Within ten years after the Berlin Act, Germany had annexed the northern shore of New Guinea from the Dutch boundary to Dampier Strait, and then the north-eastern part, the New Britain (Bismarck) Archipalego and the northern Solomons, hoisted her flag over the Marshall Islands, ostensibly to protect a German trading company, and bought from Spain all those holdings in the Pacific which America had not won in the Spanish-American War—the Caroline, Mariana, and Pelew Islands.

The United States, though she secured rights in Samoa as early as 1839, was without tangible authority there until 1889. The Hawaiian Islands in 1898, and the Philippines and Guam wrested from Spain later in the same year mark the successive stages in a tardy advance.

While throughout the whole of the nineteenth century European nations were thus striving for overseas markets in the Far East, during this period neither Japan nor the United States, the two strongest nations now bordering the Pacific, shared in the division of territory till its close. The United States had only gradually moved westward—California, Oregon, and Washington did not attain statehood respectively until 1850, 1859, and 1889—and had abundance of cheap land and numerous enterprises to absorb her spare capital. She only sought foreign trade to supplement her home industries. Japan, on the other hand, was a hermit nation with her ports locked and barred to foreign commerce, and until 1853, except for one small station confined to the Dutch on the island of Deshima, opposite Nagasaki, adopted a distinctly provincial attitude

towards territorial expansion. After 1853 her progress towards civilization was rapid.

The first railway was begun in 1870.

Mediæval feudalism was suppressed in 1871.

Military service became universal and obligatory in 1872.

A constitution was granted in 1889, and the first Japanese Parliament sat in 1890.

But as soon as interest was directed to the outside world, and she attained with remarkable speed to the status of a modern nation, Japan was content with the consolidation of her power in the neighbouring Archipelago, until its whole area from Formosa, secured as the result of her war with China in 1895, to the Kurile Islands, obtained from Russia in 1875, a length of 3,000 miles, was in her hands. Even then she looked westward towards the rich and easily exploitable mainland, rather than towards the poorer Pacific. In her Chinese War of 1894–1895 she drove the Chinese out of Korea, and by the Treaty of Shimonoseki, April, 1895, won Port Arthur and the Liao-Tung Peninsula, and though later Russia, France, and Germany in combination forced her to again leave the mainland, by the Treaty of Portsmouth, New Hampshire (1905), after the Russian War of 1904–1905, she again recovered what she had lost as well as Manchuria and the southern half of the island Sakhalin.

It was, indeed, only after her settlers had spread to California, to the Philippine and Hawaiian Islands, to the coffee plantations of Sao Paulo, Brazil, where they were welcomed by the Brazilian Government, and to Mexico (Lower California), and her trade had increased at a phenominal rate—especially during the World War—that Japan began to look further for territorial advantage.

It was the agreement with Great Britain in 1916, under which, in case of Germany's defeat, she was to receive all Germany's islands north of the equator, while Great Britain was to acquire all those south of the same line, an agreement afterwards ratified by the Treaty of Versailles, that brought Japan into a new relation with the other Allied and Associated Powers.

Japan's position in the Pacific is largely affected by her economic situation.

Her area is 149,000 square miles. Her population is 56 millions. This gives her a population density (in 1920) of 377 to the square mile, which is less than that of England and Wales , 649 (1921), Belgium, 665 (1919), and the Netherlands, 536 (1920). Moreover, this density in itself is not very high for an industrial state, if we remember that the standard of living is lower in the East than in the West, and a smaller area can feed a larger population. Further, the population density in Formosa is only 262 and in Korea only 204. But against this only 16 per cent. of the Japanese islands are cultivable or habitable, though their productivity is increased by the Kuro Siwo or Asiatic Gulf Stream flowing from the northward, and the natural efficiency and industry of the Japanese which utilizes every possible inch of soil.

It is the factor that only a small proportion of the country is available for occupation, which accentuates the necessity of emigration and industrial expansion for a people whose birthrate keeps at a high standard and is not likely to decrease in the future. Birth control is not a Japanese way of lessening population, though the rate may grow smaller with the development of the economic standard.

Other nations might be content with commercial expansion, such as came to Japan during the war. Apart from her capture of Kiaochau and the Marshall and Caroline Islands, the following figures speak for themselves :—

	Exports of Japan in £ Millions.	*Percentage of Increase over Exports in* 1914.
1914	60	—
1915	71	18
1916	113	88
1917	160	167
1918	196	227
1919	210	250
1920	195	225
1921	125	108
1922	163	172

While there was a slump in consonance with the general world slump in 1921, the trade, whose increase had been so startlingly rapid since 1914, again leapt up in 1922. Moreover, the following figures for the war years, between 1914

and 1917, may well be studied in comparison with the preceding table :—

COMPARATIVE PERCENTAGE OF JAPANESE EXPORTS AND IMPORTS, 1914-1917.

Country of Destination or Origin.	*Percentage of Exports.*		*Percentage of Imports.*	
	Plus.	*Minus.*	*Plus.*	*Minus.*
Europe	143			61
United States	181		252	
Asia			63	
India	400		38	

During the same period the Australian and New Zealand (especially the North Island) markets were flooded with Japanese goods—clothing, hardware, chemicals, jewellery, toys, silk and cotton cloth, electrical machinery, porcelain ware, hats, and buttons.

Nothing but commercial expansion, however, will ever satisfy a race whose efficiency and technical capacity is as Western as their pride and patriotism.

Let us now consider the extent of Japanese territory in the central Pacific. She first came into this region with the capture of the Marshall, Caroline and Mariana or Ladrone groups from Germany in 1914, which islands were allotted to her in 1919 by a mandate of the "B" class from the League of Nations under the same conditions as govern the other mandated territories, *i.e.*,

(*a*) The islands must remain unfortified.

(*b*) A measure of autonomous government must be set up.

(*c*) The rights of other nations must be guaranteed.

(*d*) There must be a reasonable equality of trade opportunity to all nations.

These islands are of little commercial value to Japan. Their total population is only 70,000. Their annual foreign trade, consisting chiefly of copra and phosphates, before the war, only averaged £500,000, but with their strategical position in the middle of the Pacific, they opened up a new situation with regard to the Great Powers.

(*a*) They brought Japan 2,000 miles nearer to Australia. From Port Darwin in Australia to Yap in the Carolines in a direct line is only 1,800 miles.

(*b*) Prior to their occupation the defence of American territory in the Pacific was related to the idea of the so-called American quadrilateral.

ALASKA
Dutch Harbour
Aleutian Is
CANADA
UNITED STATES OF AMERICA
San Francisco
2039 miles
3790 miles
2098 miles
CHINA
KOREA
JAPAN
Yap
Hawaiian Is (Pearl Harbour)
MEXICO
Philippine Islands
1523 miles
Guam
4711 miles
Panama Canal
Sumatra
Borneo
1800 miles
3115 miles
2251 miles
New Guinea
Java
Port Darwin
AUSTRALIA
Samoa (Pago Pago)
NEW ZEALAND
Cable Line

The corners of this quadrilateral consist of four widely separated American possessions, Dutch Harbour, in the Aleutian Islands, Guam in the Mariana Group, 1,500 miles east of the Philippines, the Hawaiian Islands, 2,100 miles south-east of San Francisco, and Samoa, 1,600 miles east of New Zealand, the length of the lines of the quadrilateral being as follows :—

Dutch Harbour to Guam	3,790 miles.
Guam to Samoa (Pago Pago)	3,115 miles.
Apia (Samoa) to Pearl Harbour (Hawaiian Islands)	2,251 miles.
Pearl Harbour to Dutch Harbour	2,039 miles.

The possession of the Marshalls and Carolines brought Japan within this quadrilateral.

(*c*) Yap, in the Western Carolines, is a relay station of the Pacific Cable of the American-owned Commercial Cable Company, linking up the American continent with the Hawaiian and Philippine Islands, the line followed being San Francisco, Hawaii, Midway, Yap, and Manila. At Yap, also, branches off the British cable to the China coast as well as the American-British line to the Japanese-owned Bonin Islands, where it meets the Japanese line to Tokio.

Now let us consider the situation of the United States. The possessions of the United States in the Pacific Ocean are the Sandwich Islands, Wake Island, Guam, the Philippines, and Samoa. Of these, Wake Island is too small to be of strategical value.

The distances from San Francisco are approximately, to Honolulu (Sandwich Islands), 2,100 miles, to Guam, 3,400 miles, and to Manila (Philippine Islands), 5,000 miles.

The Sandwich Islands contain a population of 200,000, of whom 160,000 are Japanese, 30,000 Hawaiian natives, and the rest Americans. On the island of Oahu is the fortified harbour and naval base of Pearl Harbour. Guam has a good harbour, and an area of 200 square miles. In the Philippines there is also an excellent harbour in Manila Bay, within which is the naval base of Cavite.

The Sandwich (or Hawaiian) Islands are 3,500 miles from the nearest Japanese base at Yokohama. On the other hand, Manila is only 300 miles south of Formosa, and the Japanese possess the Caroline and Ladrone Islands, east of the Philippines. Consequently, the United States, anxious to

arrive at a peaceful settlement of the relations between herself and Japan in the Pacific and to bring about a diminution of the naval armaments which had developed during the Great War, in both of which questions Great Britain was vitally interested, asked the Powers concerned if they would agree to a conference to discuss all the problems at issue. The response of the Powers was instantly favourable, with the result that in 1921 there was held the Washington Conference, which has radically affected the situation, not only in the Pacific, but elsewhere, in relation to international naval strength.

The results of the Conference were embodied in two groups of treaties, the second group dealing particularly with disarmament.

The first treaty of the first group fixed the ratio of naval strength in capital ships and aircraft carriers of the five great naval powers—Great Britain, The United States, Japan, France, and Italy—a ratio which has now been ratified by the Parliaments of the contracting Powers. Under this self-denying ordinance, from which France and Italy were partly freed, a naval "holiday" exists, which is to last until the end of 1936. Two years' notice, however, must be given by one of the contracting Powers of intention to terminate, a conference of all concerned to be held within a year of such notice. During this period, to quote Article IV of the Treaty,

> The total capital ship tonnage replacement of each of the contracting Powers shall not exceed in standard displacement or in replacement the following tonnage:—

Country.	*Displacement Tonnage. Tons.*	*Replacement Tonnage. Tons.*
(1) The United States	525,000	135,000
British Commonwealth ...	525,000	135,000
(2) Japan	315,000	81,000
(3) France	175,000	60,000
Italy	175,000	60,000

It will be seen that this for Great Britain is a one-power standard, the proportions being for displacement and replacement tonnage.

Country.	*Displacement Tonnage.*	*Replacement. Tonnage.*
The United States	5	5
Great Britain		
Japan	3	3
France	$1\frac{2}{3}$	$2\frac{2}{3}$
Italy		

In addition, while the first three Powers cannot replace until ten years have elapsed from the signing of the agreement, that is to say, until February 8, 1932, France and Italy may begin to lay down their new keels in 1927, 1928, 1929.

It may be noted that the limitation does not affect light cruisers, submarines, or torpedo boats under 10,000 tons, and that for the purposes of the agreement the fleet of Great Britain and its self-governing dominions is regarded as one fleet—the fleet of the British Commonwealth. The Imperial Conference of 1923 laid stress on this point, while suggesting that the Dominions would raise and maintain their own fleet units. Moreover, the strength of the navies of the five Powers is carefully tabulated until 1942.

West of the meridian of 110° Clause XIX of the same Treaty provides for a zone in which the *status quo* as far as naval bases are concerned, in the insular possessions in the Pacific of the British Commonwealth, the United States, and Japan, shall be maintained.

This zone does not include islands adjacent to the coasts of Canada, of Australia and its territories, of New Zealand, of the United States, of Alaska, or the Aleuts, the Hawaiian group, and the Panama zone. Naturally, also, it does not apply to the coasts of the Dominions themselves. or to Japan. It does not include Dutch Harbour, nor does it touch, for instance, Singapore, Pearl Harbour, Nagasaki, but it does comprise Hong-Kong, Yap, Juluit, Suva (Fiji).

Article XXI provides for a conference in case any change of circumstances materially affects a contracting Power, at the request of that Power, and another conference after eight years, to be called by the United States in consultation with the other contracting Powers to consider any possible technical and scientific developments.

Article XXII provides for the contingency of a war affecting the naval defence of the natural security of the Powers concerned, and the possible modification of the Treaty under such conditions, which modification, however, shall not suspend Article XXI forbidding the reconversion into a vessel of war of any vessel scrapped under the Treaty, or Article XVII preventing any contracting Power from using

a vessel under construction or constructed (but not delivered) for some other Power.

The second treaty of the group deals with the protection of neutrals and non-combatants at sea. Clause I makes, as part of international law, the necessity of an order to visit and search a merchant vessel before it can be seized, and forbids the destruction of such a vessel unless its crew and passengers have first been placed in safety. Clause III makes the person who violates these rules guilty of piracy.

Clause IV prohibits to the contracting Power the use of submarines as commerce-destroyers, and invites all other nations to adhere to this prohibition.

Finally, Clause V applies prohibition on similar terms to the use in war of asphyxiating, poisonous and other gases, and all analogous liquids, materials or devices.

The second group of treaties dealing with the Far East consists of four treaties. The Four-Power Pacific Agreement, the Far Eastern Treaty, the Chinese Tariff Treaty, and the Shantung Treaty. Their purpose is summarized below :—

(1) **The Four-Power Treaty** (substituted for the Anglo-Japanese Treaty of July 13, 1911, which came to an end in 1921), which is to remain in force for ten years from the date of signature, February 8, 1922, provides for the settlement of controversial questions in the Pacific by joint conference.

(2) **The Far Eastern Treaty.**—Signed by the United States, Belgium, Great Britain, China, France, Italy, Japan, The Netherlands, and Portugal—agrees to respect the " sovereignty, independence, and territorial and administrative integrity of China," and establishes the principle of the " open door." It is because of this treaty that Great Britain has surrendered Wei-Hai-Wei, that France has given up Kwang-Chow-Wan, and Japan Tsing-Tau and the Shantung peninsula.

(3) **The Chinese Tariff Treaty** deals with the question of Chinese customs and

(4) **The Shantung Treaty** settles certain outstanding points in regard to the retrocession of Shantung, formerly in Japanese possession, to China.

With regard to the last treaty of this group of four an optimistic aspect of the Japanese viewpoint, as expressed by a Japanese in the " Round Table " for December, 1921,

is that now that the " open door " is established in China, as soon as that country settles down, Japan will find a solution to her population problem in increased industrialism, and will be able to support this population within the boundaries of Japan proper and her adjacent colonies.

If the Asiatic continent is open to her, under stable conditions she will secure from that continent the raw materials and food supplies which will enable her surplus people to live under decent circumstances in her own country, to the development of home industries and the consequent provision of employment.

All that she needs in China is the power to buy coal, oil, cotton, and to secure a balance of imports for her exports of cotton yarn, cotton piece goods, matches, and marine products.

Much has been said in connection with the Washington Conference as to the conversion of Singapore into a first-class naval base, to which the Dominions concerned were to contribute—New Zealand the sum of £200,000 and the others in proportion.

A first-class naval base must have :—

(1) Fuel supplies.
(2) Repair facilities.
(3) Docking facilities for the largest types of ships of war that may require to use the base, *i.e.*, capital ships (with " bulges ") and aircraft carriers.
(4) Store and ammunition depots.
(5) Necessary defences to safeguard the above.

We have already seen that at Hong-Kong, lying within the zone of non-fortification, we can build no docks capable of taking the battleships of the present, or, we may suppose, any future fleet, though her isolation and her position on the western flank on the Pacific remains unaltered.

By this agreement, Britain, having signed her hand, will abide. But as there is nothing in the agreement to prevent Japan fortifying, as she will, her own ports north of the boundaries of the peaceable zone, so there is nothing to limit the fortification of Singapore in 103° 51′ E., 300 miles inside the meridian of 110. Moreover, Singapore is as far away from Yokohama as New York is from Liverpool.

THE MIDDLE EAST
Distances given in Miles
Railways
Scale
Miles
50 0 100 200 300
TURKEY
Konia
Nisibin
Aleppo
Mosul
CYPRUS
MESOPOTAMIA
R. Euphrates
R. Tigris
Kirkuk
Tripoli
Homs
SYRIA
Beirut
Damascus
Ramadi
Baghdad
PERSIA
MEDITERRANEAN SEA
Haifa
Dera'ah
Amara
Lydd
PALESTINE
KERAK
Amman
Cairo
Basra
Mohammareh
850
820
800
ARABIA
KOWEIT
EL HASA
PERSIAN GULF
Bahrein Is
GULF OF OMAN
EGYPT
EL HEJAZ
1450
Medina
WAHABIS
Muscat
TRUCIAL COUNTRY
OMAN
RED SEA
Mecca
ANGLO EGYPTIAN SUDAN
Port Sudan
Suakin
YEMEN
HADRAMAUT
1200
Kuria Muria Is
ERITREA
Hodeida
Sanaa
ARABIAN SEA
Mocha
Sheikh Said
Aden
Perim Is
GULF OF ADEN
ABYSSINIA
Djibuti
FRENCH SOMALILAND
ITALIAN SOMALILAND
Berbera
BRITISH SOMALILAND
Military Geography

The strategical importance of Singapore is obvious. She is far better placed than Hong-Kong, which has answered British requirements for the China route and has been the headquarters of the China Naval Squadron for many years. Hong-Kong, moreover, is now in a vulnerable position, owing to the increased range of modern guns and its proximity to the mainland.

Singapore covers the eastern approaches to India and our possessions in the Indian Ocean, including the sources of our vital oil supply in Burma, Borneo, and Persia. She protects the rubber industry of Malaya, as well as the large numbers of peaceful Chinese and Malays who live and work under British protection; she flanks the lines of approach to Australia and New Zealand; she guards the possessions of the Dutch, a small non-military nation, in the East Indies, from which we draw pepper and spices (Sumatra), tea, coffee, quinine (Java)—possessions in which a large amount of British capital is invested and which only have a very small naval base at Surabaya in Java.

She is, in short, the Key to the Far East. She is, as far as any port can be, the grand junction of the trade and finance of the Commonwealth, the geographical centre of Commonwealth strategy—but she is at a considerable distance to the south of the Eastern seas.

The bases of the United States are 6,000 miles away from the area under consideration. The Philippine Islands, which lie within the area, and can only be seized or protected by the medium of sea power, can have no adequate base. Of their two stepping stones between San Francisco Bay or the Panama Canal, the coast ports of Puget Sound and San Diego and Manila, one, Pearl Harbour, at Hawaii in the Sandwich Islands, retains as its *status quo* a naval base with one large dock, the other, Guam, 3,000 miles west by south of Pearl Harbour, Manila, and Samoa, remains as an unfortified harbour, with no further possibilities in the improvement of existing facilities for the repair and maintenance of naval vessels.

Further, if America decided to approach the area from the north, she cannot make a very effective naval base at Dutch Harbour in the Aleutian Islands within 3,000 miles of Tokyo and within the ice limit.

Lastly, there is the strategical position of Japan. Her relation to the western Pacific is much the same as the relation of the British Islands to the North Sea and the Eastern Atlantic. Her territory lies athwart the eastern approaches to China. Only in Hong-Kong is there a clear approach from the ocean. From Formosa in the south, through the Liu Kiu Islands and Japan proper to Sakhalin in the north, her flag flies over a continuous chain of islands. To the west of Formosa are the Pescadores, a group of islands commanding the channel between that island and China, some 500 miles from the Philippines and 300 miles north of Hong-Kong. Here Japan will no longer make a base, as she had intended. She will, however, retain her second-class bases in Formosa, and in Japan itself, her large dock-yard ports of Sasebo and Port Arthur on the mainland, and these with her Korean ports give her the hegemony of the Yellow Sea and the Sea of Japan.

This is Japan's line of defence. Her line of outposts—in the Ladrones and Marshall Islands, 2,000 miles south-west of Japan, for which she holds a mandate—lie within the neutral zone of non-fortification.

Singapore is the natural focus for Commonwealth co-operation under any set of circumstances that may arise, involving or not involving the presence of enemy vessels with a naval base in the Pacific. Whether for local defence of the commercial harbours of Canada, Australia, New Zealand, if threatened by commerce destroyers, as in the Great War, or for concentrating great naval forces to fight a decisive naval battle, Singapore is equally suitable.

Appendix XIV.

NAVIES OF THE PRINCIPAL COUNTRIES.

Table showing number of ships in commission, 1923 :—

	British Commonwealth.	*France.*	*Italy.*	*Japan.*	*U.S.A.*
Battleships	22	10	12	11	31
Battle cruisers ...	8	—	—	7	—
Cruisers	3	7	4	—	10
Light cruisers ...	51	5	10	12	9
Monitors, etc. ...	5	—	8	5	—
Aircraft carriers ...	4	—	—	1	1
Flotilla leaders ...	16	1	8	—	—
Destroyers	184	53	58	58	315
Torpedo boats ...	68	—	73	—	—
Submarines	93	50	43	24	102
Sloops	30	8	—	—	—
C.M.Bs.	27	2	—	—	—
Gunboats	—	69	1	4	4
River gunboats ...	17	3	4	3	2

It will be noted that the two-power standard for Great Britain, often insisted on before 1914, in 1923 only holds good for battle cruisers, light cruisers, aircraft carriers, flotilla leaders, sloops, C.M.Bs. and river gunboats.

CHAPTER XVI

The Land Forces of the Commonwealth.

The land forces of the Commonwealth may be divided into four distinct groups.

(A) The forces of the United Kingdom.
(B) The forces of the Self-Governing Dominions.
(C) The forces of India.
(D) The forces of the Colonies and Protectorates.

(A) The land forces of the United Kingdom consist of the Regular Army, the Territorial Army, and the Reserve Forces. As the British Regular Army serves both at home and abroad, it is generally called the British Army to distinguish it from the Indian Army or Native Army recruited in India, and the Local Forces of British Colonies and Protectorates, which are composed of native personnel, officered by British officers.

The Regular Army, whether at home or abroad, is paid for out of the British Exchequer, *i.e.*, by the British taxpayer.

India pays a contribution towards the cost of troops at home, owing to the fact that there are there depots for sending drafts to the regular troops in India. On the other hand, the British Exchequer pays for the cost of Indian and Colonial troops serving outside their own countries.

The Territorial Force serves only at home in peace time, but is asked to accept liability for service overseas in time of war, subject to the consent of Parliament.

The rank and file of both the Regular and the Territorial Army are secured by voluntary enlistment.

The Reserve Forces consist of the Army Reserve, the Supplementary Reserve, the Channel Islands and Colonial Militia (the latter comprising the Isle of Man Volunteers, the Malta Militia and the Bermuda Militia), and the Territorial Reserve.

The Army Reserve is composed of men who have completed their period of colour service with the Regular Army. Its strength in 1922–1923 was 101,000.

Service in the Regular Army is for 12 years, with permission to extend to 21 years under certain conditions. Of the original 12, from 3 to 9 are spent " with the colours," *i.e.*, on permanent service, and the remainder of the time in the Reserve. As a rule, except in the Foot Guards, men serve for 7 years with the colours and for 5 years in the Reserve. Men enlist between 18 and 25 years of age.

The peace establishment of formations serving at home is lower than that of those serving abroad. On mobilization for war, the establishment is brought up to war strength by calling up men from the Reserve.

For training and administration the fighting troops of the infantry are usually divided into divisions, each consisting of three brigades with divisional artillery, engineers, and auxiliary services. Each brigade consists of four battalions The cavalry are organized into brigades, each brigade containing three regiments.

The organization of the Territorial Army is similar to that of the Regular Army, there being 14 infantry divisions, as well as mounted brigades.

For purposes of command Great Britain is divided up into six commands (Scottish, Northern, Western, Eastern, Aldershot, and Southern) and two Districts (London and Northern Ireland). These Commands are also recruiting districts for the Territorial Army. All the Commands, except Aldershot, which has a very limited area, include from 1 to 4 Territorial mounted brigades and 2 or 3 Territorial divisions.

Aldershot is the main station for troops quartered at home, and has, under normal conditions, 2 Regular Divisions. Each Command has a General Officer Commanding-in-Chief, who is assisted by a General Officer or Colonel on the Staff in charge of Administration, as distinct from Training and Defence.

The land forces are administered by an Army Council, composed of five civilians :—

(1) The Secretary of State for War, President.

(2) Parliamentary Under-Secretary of State for War.—Vice-President, responsible for the Territorial Army.

(3) Finance Member—Finance.

(4 and 5) Permanent Secretaries of the War Office (2), and four soldiers, who are heads of departments of the War Office :—

(i) Chief of the Imperial General Staff (C.I.G.S.)—Responsible for (*a*) drawing up plans of attack and defence, (*b*) military training, (*c*) intelligence work, (*d*) education.

(ii) Adjutant-General (A.G.) — Responsible for (*a*) recruiting, (*b*) interior economy, (*c*) discipline, and (*d*) medical services.

(iii) Quartermaster-General (Q.M.G.)—Responsible for (*a*) equipment, (*b*) supply, (*c*) transport, and (*d*) remounts.

(iv) Master-General of Ordnance (M.G.O.)—Responsible for (*a*) armament, and (*b*) works.

The Territorial Army is largely administered by County Associations, over whom the War Office merely exercises a general control as regards expenditure.

The total personnel of the Regular Army in 1922–1923 was 215,000. This was reduced in 1923–1924 to 170,800. The peace strength of armies of the other Powers is as follows :—

Belgium	119,000
France	736,000
Italy	210,000
Japan	250,000
Poland	275,000
Russia	1,300,000
U.S.A.	144,000

All these armies, except that of the United States, are secured by conscription.

(B) The forces of the Self-Governing Dominions are dealt with in tabulated form below.

(1)—The Dominion of Canada.

For purposes of defence, Canada is divided into 11 Military Districts, each under a General Officer, organized on a Divisional basis, with mounted and technical units attached.

The organization allows for 25 infantry and 7 mounted brigades with artillery and engineers in proportion. It is divided into :—

(i) **Permanent Active Militia,** consisting of :—

Cavalry :

Royal Canadian Dragoons.
Lord Strathcona's Horse (Royal Canadians).

Artillery :

Royal Canadian Artillery.
Royal Canadian Horse Artillery.
Royal Canadian Garrison Artillery

Engineers :

Royal Canadian Engineers.

Signals :

Royal Canadian Signals.

Infantry :

Royal Canadian Regiment.
Princess Patricia's Canadian Light Infantry.
Royal 22nd Regiment.
Royal Canadian Machine Gun Brigade

and detachments of Royal Canadian A.S.C., A.M.C., O.C., A.V.C., A.P.C. The National Defence Act of 1922 provides for a department of National Defence, presided over by a Minister, who is charged with all matters relating to Defence, including the Militia, Military, and Naval Air Services of Canada. An advisory Defence Council is constituted.

Total authorized strength : 494 officers, 6,457 men.

There is a Military College for the training of Cadets at Kingston, Ontario.

(ii) **Non-Permanent Active Militia.** (Voluntary service for three years, but liable to be called up by the Government if occasion arises).

(2)—The Commonwealth of Australia.

The principle of the defence policy of Australia is the universal compulsory training of a Citizen Army. A small permanent force is maintained, only in such numbers as are necessary to instruct and administer the Citizen Forces.

The Army is organized in 2 cavalry divisions, 4 complete infantry divisions, and 3 mixed brigades, which in certain circumstances will be capable of union into a fifth division.

These divisions will be supplemented by the proportion of "extra divisional units," which war has shown to be necessary, and of which the Commonwealth is at the time capable.

The chain of responsibility is as follows :—

Divisional Commander, with allotted area and personnel as fixed machinery of unit.—Complete responsibility for *preparation for war* of forces under his command.

Military Board, under presidency of Minister of Defence.—Responsibility for *control and administration.*

Council of Defence, under presidency of Prime Minister.—Responsibility for *policy, continuity, and co-ordination of requirements of sea, air, and land.*

Any men who have served in the Australian Imperial Forces may join the Citizen Force in their old units, and thus form part of the Reserve on which the scheme is built. This Reserve consisted at the end of 1922 of 48,000 men.

All youths of 17 to 18 are given advanced physical training, and are prepared for graduation to the Citizen Force. The Citizen Force is trained for four years :—

First year, 10 weeks.

Second to fourth years, 6 days.

At 22 a citizen is free from training, but he must register until he is 26.

There is a Royal Military College at Duntroon.

Rifle Clubs receive a subsidy and a free grant of ammunition.

Total Strength (approximately) :—

	Officers.	*Men.*
Permanent Force	300	1,400
Citizen Force	2,000	30,000
Reserves	14,000	120,000

(3)—Dominion of New Zealand.

Under the Defence Act of 1909—amended in 1910—every male New Zealander between 12 and 25 was to be trained, with further service in the Reserve to the age of 30, *i.e.*,

Age.	*Designation.*	*Training.*
12 to 14 ...	Junior Cadet ...	—
14 to 18 ...	Senior Cadet ...	50 drills and Annual Musketry Course.
18 to 25 ...	Territorial ...	30 drills, 6 whole-day parades, 7 days training.
25 to 30 ...	Reservist ...	—

The present Territorial strength is about 1,500 officers and 30,000 men.

New Zealand has a General Officer Commanding and an Officer Commanding for each of its three Commands. Each of the Commands furnishes a brigade of infantry, field artillery, and mounted rifles.

On mobilization, these forces become two complete divisions, one of infantry, one of mounted infantry.

(4)—The Union of South Africa.

The South Africa Defence Act of 1912, as amended by the Act of 1922, provides for :—

(i) *The South African Permanent Force*, including :—

South African Staff Corps.
South African Instructional Corps.
South African Field Artillery.
1st Regiment, South African Mounted Riflemen.
South African Permanent Garrison Artillery.
South African Engineer Corps.
South African Service Corps, and corps for other necessary services.

(ii) *Coast Garrison and Citizen Force.*
(iii) *Reserves.*

Every citizen from 17 to 60 is liable to personal service in time of war, and from 21 to 25 to active peace training with the Citizen Force over a period of four consecutive years. Only 50 per cent. of these, however, will actually be trained. All others have to be trained in a Rifle Association, so that every citizen may know how to handle and use a rifle.

Boys in populous areas from 13 to 17 are also trained.

There are fifteen military districts.

The size of the Permanent Force is approximately 125 officers, and 1,300 men, and

Of the Coast Garrison and Active Citizen Force approximately 400 officers, and 7,500 men.

(5)—The Colony of Newfoundland.

Newfoundland has no permanent force except a small constabulary.

(C) **India.**

The forces in India consist of :—

(*a*) Troops of the British Regular Army quartered in India.

(*b*) The Auxiliary Forces.

(*c*) The Indian Army.

(*d*) The Indian State Forces.

They are administered by the Headquarters Staff and the Army and Marine Department, both under the supreme control of the Commander-in-Chief, who is a member of the Viceroy's Council. The Headquarters Staff comprises five branches, administered respectively by :—

Chief of General Staff (C.G.S.)
Adjutant General (A.G.)
Quartermaster-General (Q.M.G.)
Master-General of Ordnance (M.G.O.), and
Military Secretary (M.S.).

The Army and Marine Department deals with supply and finance. In this department the Commander-in-Chief is assisted by an Advisory Council, analogous to the Army Council, composed of the heads of branches of the Headquarters Staff, with the addition of the Director General of Indian Medical Services (D.G.I.M.S.), the Secretary to the Government of India in the Army Department, the Financial Adviser and the Air Officer commanding Royal Air Force (R.A.F.).

For purposes of inspection and training the forces are organized into four Commands :—

(1) Northern.
(2) Western.
(3) Southern.
(4) Eastern,
and one District (Burma Independent).

The Commands each contain a number of divisions and independent brigades.

The British Regular troops in India are organized into brigades and divisions with the Indian Army, the normal proportion being 3 British battalions to 1 native. The Horse, Field, and Garrison Artillery, the Royal Tank Corps, and the Royal Air Force are wholly British.

The Auxiliary Forces are organized under the Auxiliary Forces Act (1920). Under this Act registration is voluntary, and confined to those of British extraction.

The preliminary training for infantry is 32 days, and 40 days for the other arms. The Auxiliary Force is the second line to the Regular Army of India.

The Indian State Forces (from 1887 to 1921 The Imperial Service Troops) are raised and maintained by native states, and are trained under the supervision of British officers, who act as military advisers to the native rulers. During the war many of these troops, notably the Jodhpur and Mysore Lancers at the capture of Haifa, the Bikanir Camel Corps, and the Kashmir Infantry proved themselves to the hilt.

The groundwork of the present organization is the provision of both internal security and of a sufficient quota for the Indian Army on mobilization in time of war. This has involved reconstruction on the basis of the establishment of the Indian Army. When the scheme is completed, nearly 50 states will participate, and provide between them nearly 30,000 men for a great contingent.

At the end of 1922 there were in India, outside the Regular Army :—

	Auxiliary.	*Indian Army.*
Cavalry Regiments	11	20
Pack Artillery Batteries	—	19
Garrison Artillery Batteries	20	—
Engineer Companies	5	24
Infantry Battalions	23	126
Signal Service Companies	1	14
Railway Battalions	19	14

(D) The Forces of the Colonies and Protectorates.

(i) West Indies and South America :—

Bahamas—Militia and Volunteer Forces.
Barbados—Volunteer Force (Infantry).
British Guiana—Militia, Artillery (Europeans and Creoles), Infantry (Europeans, Creoles, and natives).
British Honduras—Territorial Force.
Jamaica—Militia, Volunteers (Kingston Infantry, Jamaica Corps of Scouts).

Leeward Isles :—

Antigua—Defence Force.
St. Kitts-Nevis—Defence Force.
Dominica—Defence Force.
Montserrat—Defence Force (Reserve).

Windward Isles :—
St. Lucia—Volunteer Corps (St. Lucia Volunteer Corps, Mounted Infantry).
St. Vincent—Volunteer Corps.
Trinidad and Tobago—Volunteers, Trinidad Light Horse, Trinidad Light Infantry.
Bermuda—Militia Artillery, Volunteer Rifle Corps.
Falkland Isles—Volunteers.

(ii) EUROPE.
Malta—R.E. (Militia), Malta Division.

(iii) AFRICA.
East Africa :—
Kenya Colony—Permanent Force (King's African Rifles, 3rd and 5th Battalions, and Supply and Transport service).
Nyasaland—Permanent Force (1/1st King's African Rifles).
Uganda—Permanent Force (4th Bn. King's African Rifles).
Tanganyika Territory—Permanent Force (2/1st, 2nd, and 6th Bns. King's African Rifles).
Zanzibar Protectorate—Permanent Force (part of 6th Bn. King's African Rifles).
Somaliland—Permanent Force (Somaliland Camel Corps, King's African Rifles).
West Africa :—
Gambia—Permanent Force (Gambia Company, West African Frontier Force).
Gold Coast—Permanent Force (Gold Coast Regiment, West African Frontier Force).
Volunteers (Gold Coast Volunteers).
Nigeria—Permanent Force (Nigeria Regiment, West African Frontier Force).
Sierra Leone—Permanent Force (Sierra Leone Battalion, West African Frontier Force).
South Africa :—
Northern Rhodesia—Volunteers (Northern Rhodesia Volunteer Force).
Southern Rhodesia—Volunteers (Southern Rhodesia Volunteers).

(iv) ASIA, AND ISLANDS IN THE INDIAN OCEAN.
Ceylon—Defence Force (Mounted Rifles, Garrison Artillery, Engineers, Light Infantry, Planters' Rifle Corps, 1st Bn. Colombo Town Guard, Ceylon Cadet Bn. Outer Town Guards, Supply and Transport and Medical Corps).
Hong-Kong—Volunteer Defence Force (Artillery, Engineers, Infantry).
Malay Peninsula :—
Straits Settlements—Volunteers (Singapore Volunteer Corps, Malacca Volunteer Corps, Penang and Province Wellesley Volunteer Corps, Labuan Volunteer Detachment).
Federated Malay States—Volunteers (Federated Malay Straits Volunteer Regiment, Malayan Volunteer Infantry).
Unfederated Malay States—Permanent Force (Johore Military Force), Volunteers (Johore Volunteer Forces, Kelantan Volunteer Rifles, Kelantan State Volunteers).
Mauritius—Volunteers (Volunteer Force).
Pacific :—
Fiji—Defence Force.
Gilbert and Elice Islands—Volunteers (Fanning Island Volunteer Reserve, Ocean Island Defence Force).

In addition, practically every colony and protectorate has an armed force of constabulary.

CHAPTER XVII

The Imperial Conference.

The Imperial Conference is a periodical assembly of "the Prime Ministers and other Ministers of the self-governing Dominions and of the Secretary of State for India and other representatives of India, under the presidency of the Prime Minister of the United Kingdom, or, in his absence, under the chairmanship of the Secretary of State for the Colonies, for the discussion and consideration of matters of common interest to the Commonwealth."

The first Conference—called the Colonial Conference—was held in 1887, the latest in the autumn of 1923. To the conference of 1923 was also added another Imperial Conference of equal status, and meeting at the same time, known as the Imperial Economic Conference.

The beginnings of the Imperial Conference coincided with a wave of Imperial enthusiasm consequent on the vast increase of British territory—over 1,000,000 square miles—in the last two decades of the reign of Queen Victoria. In 1887, amidst great rejoicing, the Queen celebrated the fiftieth year of her reign. The celebrations were marked by a great thanksgiving service in Westminster Abbey in June, and a great naval review at Spithead in July. As the festivities and the occasion naturally attracted to London the leading men from the British possessions overseas, advantage was taken of their presence to bring together for a meeting in April and May representatives not only of all the self-governing Colonies as well as of Natal and Western Australia, but of the home Government, at which numerous matters of moment, especially the question of Colonial Defence, were discussed.

The most practical outcome of the conference was the increase of the Australian squadron, supported by the Naval

Defence Agreement of the Australian Colonies, under which they undertook to pay an annual contribution for this purpose for ten years, and the settlement of the government of British New Guinea at the joint cost of Great Britain and Queensland.

In 1894 a Conference of representatives of the self-governing Colonies was held at Ottawa. The main reason for this conference was the consideration of a Pacific cable under British control between Canada and Australia. A committee of delegates from the Home and Colonial Governments was appointed two years later to consider the question in greater detail, and eventually, after the formation of the Pacific Cable Board, the work of laying was begun in 1902.

In 1897 the sixtieth year or Diamond Jubilee of Queen Victoria's reign was acclaimed with even more public rejoicing than in 1887. Accordingly, the representatives of all the self-governing Colonies—eleven in number—and of the Crown Colonies were asked and came to a second Colonial Conference. Again, the matter of Imperial Defence was brought forward, and the Premier of Cape Colony offered a first-class battleship to the British Navy, an offer which was later changed to a contribution in money.

The next Colonial Conference was held in 1902, in connection with the coronation of Edward VII, a critical year, as the Boer War had just come to a close.

As the more important colonies had shown their loyalty to the Commonwealth by dispatching contingents to South Africa, resolutions were passed, increasing the annual colonial contributions to the navy. At the same time it was decided to hold periodical meetings of the conference every four years.

The last Colonial Conference—the first disconnected from an Imperial function—was held in 1907, and the first resolution in the following terms, was of prime importance—"That it will be to the advantage of the Empire if a conference is held every four years, at which questions of common interest may be discussed and considered as between His Majesty's Government and His Governments of the self-governing Dominions beyond the seas." In the same resolution the constitution of the conference, the general method of voting, the establishment of a permanent secretariat, "to keep the several Governments informed during the

periods between the conferences as to matters which have been or may be subjects for discussion," and the calling of subsidiary conferences, when necessary, were also proposed.

At this conference, also, Defence attracted much attention, and was further considered at a subsidiary conference held in 1909.

The main results of the Conference of 1909 were :—

(*a*) The acceptance of the offer of Australia and New Zealand to provide a battle-cruiser, to be kept on the China and the Australia stations respectively.

(*b*) Australia was to maintain, with temporary assistance from Imperial funds, a separate unit of the British Navy.

(*c*) Canada was to form a naval unit.

(*d*) New Zealand was to continue her money contribution to the China unit of the Pacific fleet.

(*e*) A general plan of Commonwealth Defence was to be drawn up for the combination of all its land forces, when necessary, into a homogeneous army.

The meeting of 1911 was the climax of the series that had begun in 1887. For this conference elaborate agenda was prepared in advance by the self-governing Dominions, while New Zealand brought forward recommendations for an " Imperial Council of State," an " Imperial Court of Appeal," and the separation of the Dominions from the Crown Colonies in the Colonial Office, both to be administered by a " Secretary of State for Imperial Affairs." The separation within the Colonial Office had already taken place, but no definite action was taken on the other suggestions. Other matters before the conference included emigration, naturalization, communications by wireless telegraph and cable, natural resources, merchant shipping, and the position of British Indians in the self-governing Dominions. Dominion representatives also sat at the same time on the Committee of Imperial Defence, which had just been formed.

Perhaps the practical results of the conferences held prior to the Great War do not loom very large. No super-organization had been created out of their deliberations, and the chief link between its various parts was still the bond of heritage, loyalty and common tradition, augmented by commercial and military needs.

But, as was pointed out in Chapter II, organization has never been a characteristic of the British Commonwealth in times of its greatest stress, and the seemingly loose ties uniting the most heterogeneous combinations of peoples and races, and religions, and tongues were yet to bear the strain. The test came sooner than was expected.

When the Dominions spontaneously and unitedly agreed to participate in the war declared on Germany by Great Britain on August 4, 1914, it was obvious that they must obtain a greater share in the administration of the Commonwealth. Equality of sacrifice entails equality of privilege. In December, 1916, Mr. Lloyd George assumed office as Prime Minister of the United Kingdom. Feeling the difficulty of a large Cabinet as an efficient war executive, he secured the creation of a smaller War Cabinet of five members—kept in touch with the larger Cabinet by a secretariat—to which were summoned representatives not only of the self-governing Dominions, but of India.

Consequently, by the spring of 1917 the Imperial War Cabinet composed of the War Cabinet and these additional members came into being, the Secretary of State for the Colonies being a member only as representing the Crown Colonies and Protectorates. The two Cabinets met alternately, while matters of military interest were dealt with by an Imperial War Conference " to consider the steps that may be required to ensure that the fruits of victory may not be lost by unpreparedness in times of peace, and to develop the resources of the Empire." The significance of this constitutional change was recognized in the self-governing Dominions.

" For the first time," said Sir Robert Borden, the Prime Minister of Canada, " there are sitting in London two Cabinets. One of them is designated as the War Cabinet, which chiefly devotes itself to such questions as primarily concern the United Kingdom. The other is designated as the Imperial War Cabinet, which has a wider purpose, jurisdiction and personnel. To its deliberations have been summoned the representatives of all the Empire's self-governing Dominions ; we meet them on terms of equality under the presidency of the First Minister of the United Kingdom ; we meet them as equals, he is *primus inter pares*. Ministers for six *nations*

sit around the Council Board, all of them responsible to their respective Parliaments."

The second Imperial War Cabinet was held in June, 1918, and passed at least one important resolution—"That the Prime Ministers of the self-governing Dominions have the right of direct communication with the Prime Minister of the United Kingdom on matters of Cabinet importance."

It was during this second session that the Imperial War Cabinet was called a "Cabinet of Governments." As soon as hostilities came to an end—in November, 1918—the Prime Ministers of the self-governing Dominions were immediately summoned to London, and not only took part in the Peace negotiations in Paris as representatives of separate nations, but sat on the various Allied Commissions. The constitution of the Commonwealth delegation at the Peace Conference was as follows :—

Australia : 2 delegates.
Canada : 2 delegates.
South Africa : 2 delegates.
India (including the Native Princes) : 2 delegates.
New Zealand : 1 delegate.

When the treaty was actually signed, the signatures of the representatives of Canada, Australia, South Africa, and New Zealand were attached, and under it these four nations became original members of the League of Nations. When the enemy territories were being parcelled out, the last three also received mandated territories.

In the case of South Africa, General Smuts declared that the mandate was given directly, and not through Great Britain. At the same time, during the debate in the South African Parliament on the ratification of the treaty, General Smuts defined the British Commonwealth as "a league of free states," . . . . with "a position of absolute equality, not only among the states of the Empire, but among the other nations of the world."

One is reminded by General Smuts' words of what Edmund Burke said over a hundred years ago, just after the loss of the American colonies, when he declared that the bonds joining the colonies to the Motherland were to be found in a "close affection, which grows from common names, from kindred blood, similar privileges, and equal protection."

Since that time several events have shown that this attitude of the self-governing Dominions towards the Commonwealth is recognized and accepted by Great Britain.

Among these may be mentioned :—

(1) The desire of Canada and the Irish Free State for separate representation at Washington.

(2) The presence of representatives of Canada, Australia, New Zealand, and India at the Washington Conference of 1921.

(3) The signature by Canada and the United States, independently of Great Britain, of the Halibut Fisheries Act (1922).

(4) The refusal of Canada to ratify the Treaty of Lausanne.

In view of both the constitutional and the economic condition of the Commonwealth, the proceedings of the Imperial Conference and of the Imperial Economic Conference of 1923 were of particular interest. In composition, the Conference had slightly changed since the meeting of 1921, in that the Irish Free State, which had become a Dominion in that year, was represented for the first time, and the excess of the population of the Mother Country over that of the Dominions was reduced from 31 to 24 millions.

The main problem before the Imperial Conference was that of external relations, and the correlated need of effective inter-Commonwealth consultation on foreign affairs, a need which Chanak and the problem of the Pacific had brought into the limelight.

On the other hand, in some respects the Imperial Conference could look upon the world situation with greater equanimity than in 1921. The settlement in the Pacific, the success of the experiment of the League of Nations in Austria, the peace with Turkey, had cleared the world air in some quarters, even though in other parts the atmosphere might still be gloomy and glowering.

Much was accomplished by the re-affirmation by the Conference of loyalty to the League of Nations, but even more by the unanimity of the members on matters of vital moment to the Commonwealth, as may be seen by the following resolutions, all of which are contained in the summary of proceedings.

A.—The Imperial Conference.

(1) **Treaties.** "It is desirable that no treaty should be negotiated by any of the Governments of the Empire without due consideration of its possible effect on other parts of the Empire, or, if circumstances so demand, on the Empire itself."

(This, it will be noticed, implies the right of the Dominions to make treaties, with safeguards).

(2) **Defence.** A resolution declaring that :—

(*a*) The Commonwealth and its trade must be adequately defended.

(*b*) The nature and extent of action within the Dominions shall be decided by their Parliaments.

(*c*) Subject to these conclusions, that :—

(i) Each portion of the Commonwealth shall be responsible for its own local defence.

(ii) The maritime communications of the Commonwealth be adequately safeguarded.

(iii) To ensure the mobility of the fleets, naval bases, and facilities for repair and fuel shall be provided.

(iv) A minimum standard of naval strength shall be maintained in accordance with the provisions of the Washington Treaty.

(v) The Air Forces of the Commonwealth shall be developed on a common standard.

At the same time Australia, New Zealand and India expressed their deep interest in the provision of a naval base at Singapore, and the Conference generally noted the necessity for the safety of the Mediterranean—Suez Route and of the maintenance of a "Home Defence Air Force of sufficient strength to give adequate protection against an attack by the strongest air force within striking distance of her shores."

B.—The Imperial Economic Conference.

The purpose of the Imperial Economic Conference, as such, was, primarily, to try and solve the natural problem of how far it was possible for the Commonwealth to "take in its own washing," to find its markets and shops and customers within its own limits.

But Commonwealth trade may be assisted in other directions. Improved means of communication and transport

suggest themselves at once, while the advantage in Commonwealth preference in all public contracts is widely recognized. Research work, both to discover the value of natural products and to put them to an economic use, is essential to progress. Just as vital is an adequate commercial intelligence service, whereby every portion of the Commonwealth may know what another portion needs, and the prospective purchaser may be kept informed of his available source.

The stabilization of the Commonwealth currency and exchange, Commonwealth standardization of trade marks, patents, and valuation for Customs invoices, greatly facilitate Commonwealth trade. Consequently, these and other matters were embodied in the resolutions.

The agenda paper of the Imperial Economic Conference covered a great range of other subjects. Certain obvious problems loom large to-day, which its members were bound to consider. First and foremost comes the present unequal distribution of the people of the Commonwealth. In the United Kingdom the population is rapidly increasing, side by side with widespread unemployment. To this end the Overseas Settlement Act was passed in 1922, to embody the principle of State-aided Commonwealth settlement, and to establish co-operation with the Governments of the Dominions, who were ready and willing to take settlers. The actual amount set aside by the Home Government was £1,500,000 in 1922-23, and £3,000,000 from 1923–1937 (14 years).

It is hopeless to ship emigrants to the Dominions who are unsuited to the life they will have to lead. Careful selection and supervision, with preliminary training and assistance, is even more important to-day than it was at the time of the Durham Report. Moreover, the Dominions are not likely to be willing to accept a greater population unless they can be sure of a market to follow the greater production. The Australian project of the Murray River will absorb three quarters of a million people, but it is no use Australia having more dried fruits than she can consume, unless someone is ready to buy them.

It will be seen from the following resolutions and decisions how thoroughly these serious matters were investigated, and how valuable were the results attained.

(*a*) A re-affirmation of the resolutions of the Imperial War Conference of 1917, that :—

(i) "Each part of the Empire, having due regard to the interests of our allies, shall give special favourable treatment and facilities to the produce and manufactures of other parts of the Empire."

(ii) "Arrangements be made whereby intending emigrants from the United Kingdom may be induced to settle under the British flag."

(*b*) A resolution in favour of preference on certain foodstuffs. (The proposed preferences have been dealt with in Chapter III).

(*c*) A re-affirmation of the principle that in Government contracts preference shall be given to goods made and materials produced in the Commonwealth.

(*d*) Imperial Communications. Resolutions in favour of:—

(i) Keeping the Imperial Shipping Committee alive, and of the adoption of a common Commonwealth standard for bills of lading.

(ii) The exchange of information with regard to Air Navigation.

(iii) "The establishment, as soon as possible, of an efficient Imperial wireless system, and the support of the State-owned Atlantic cable route."

(*e*) Interest on Commonwealth Loans. Approval of an agreement by the British Government to contribute up to three quarters of the interest charges for five years, under certain conditions, on loans raised for public utility undertakings overseas.

(*f*) Imperial Economic Committee. A resolution in favour of an Imperial Economic Committee to advise upon any matters of an economic or commercial character referred to it by any of the constituent Governments.

The Committee is to be made up as follows :—

Great Britain	4	members
Self-Governing Dominions (2 each) ...	12	,,
India	2	,,
Colonies and Protectorates	2	,,
Total ...	20	,,

It may be noticed that nothing has been done as yet to create an "Imperial Council," to place the Imperial Conference on a constitutional basis, or to officially translate into action any written scheme of Commonwealth Federation.

Appendix XV.

OPPORTUNITIES FOR OVERSEAS SETTLEMENT FOR SOLDIERS.

At the Army Vocational Training Centres of Hounslow and Catterick "Overseas Training" courses are offered—specially designed for intending emigrants—to men in the last six months of their service.

Soldiers of good character, who have signed on for not less than six years with the Colours, are eligible for these courses, though, in special cases, those who have no reserve service to complete their engagement or are not qualifying for pension will be considered.

These courses will teach a man to drive a team, to milk, to plough, and to carry out ordinary farm routine.

If he is physically fit, hardworking, and thrifty, and likes a country life—only *if*—and has had this preliminary training, he can then face the prospect of emigration with hopefulness, his ultimate aim being the ownership of sufficient land to keep a family in comfort and provide a future for his children. But there is always the question of capital. With capital up to £1,000 and the above qualifications, there is a delightful climate and great possibilities in New Zealand, South Africa, Southern Rhodesia, the highlands of East Africa. But if a man has little or no capital, where is he best advised to go ?

In this case the following parts of the overseas Dominions are all suitable :—

(A) Australia.

(Under the Australian Settlement Scheme.)

1. Western Australia. (Under the Western Australia Group Scheme.) (This is only suitable for married men with agricultural experience at home, and good health for all the members of a family is essential.)

(*a*) *Situation and Market.*—The locality chosen has a good climate and ample rainfall, and is suitable for dairy farming, fruit growing, and intensive culture. The Government is principally concerned with dairying, and provides financial assistance and expert advice on this subject. A good market exists for produce.

(*b*) *Procedure.*—On arrival, if selection has not been made previously, the family is allotted to a group. A group consists

of about twenty adjoining blocks of land, each from 80 to 100 acres in extent. An experienced foreman is in charge, and generally supervises the group until every family is established on a completed block.

(*c*) *Method of Payment.*—The land is granted free except for office and survey charges of about £13. Temporary housing accommodation is provided for families on arrival. Each member —*i.e.*, the senior male of the family—can draw up to 10s. a day for each day worked until he is established on a completed farm ; the total amount of wages drawn to be repaid to the Government.

(*d*) *Possession of Stock and Land.*—After clearing, fencing, etc., a house is erected, and the holding is balloted for by waiting members. Ten cows, one horse and plough, and pigs and poultry are advanced, and formal possession of the holding is granted subject to a mortgage to reimburse the Government, the money expended on the preparation of the farm, and advances for stock and equipment.

(*e*) *Government Assistance.*—The total amount of the mortgage will not exceed £1,000 to be repaid within thirty years. During the first five years interest only is paid, and the principal with interest added is repaid by fifty half-yearly instalments.

(*f*) *Education and Sick Insurance.*—Free education is provided for the children, a sick and accident fund is provided, to which members subscribe.

2. Victoria.

(*a*) *Capital Required.*—Intending settlers should have a minimum of £300 capital, and will have to satisfy the " Settlement Board " as to their suitability. The settler's capital will remain at his own disposal.

(*b*) *Nature of Land.*—The land is close to the railway, and is irrigated and suitable for dairy farming, fruit growing, cotton growing, etc., and varies from 15 to 20 acres according to the crop. In the case of wheat growing, sheep farming, or mixed farming the block size of the farm may extend to 600 acres.

(*c*) *Government Assistance.*—The Government erects a house and the settler may take up his farm at once, or, if he prefers, may spend a few months working for wages on another farm to gain experience. Expert advice and assistance is provided by the Government.

(*d*) *Grouping of Farms.*—Several farms are always grouped together or adjacent to townships to prevent the social side of life being lost sight of.

(*e*) *Government Advance of Capital.*—Besides providing the land, the Government will advance up to £500 in cash for the purchase of equipment and stock. The cost of the land, which may run up to £1,000, will be repaid with interest over a period of 36½ years. The cash advance will be repaid with interest over a period of 20 years.

3. Other Settlement Schemes are under discussion, but new settlers should not take up land except in connection with an authorized scheme until they have had practical experience in the country for at least twelve months.

4. General Notes on Australia.

(1) 28,000 officially approved settlers went out in 1922, of whom 13,000 went out to join friends who had nominated them. Future settlers can arrange for their friends to join them at reduced fares after they have themselves settled.

(2) All approved settlers obtain a reduced passage at £22 instead of £37, and are guaranteed work on arrival. Men going to rural work get a free railway pass to their first situation.

(B) Canada.

The following applies only to soldiers who have served in an active theatre of operations during the late war.

(1) Under the Soldier Settlement Act, the settler must acquire practical experience on the land in Canada, and must have a personal minimum stake of 20 per cent. of the cost price of the land.

Experienced farmers who take one full year's practical training with an authorized Canadian farmer will be accorded assistance if they have a personal stake of 10 per cent. of the cost of the land.

The condition as regards farming experience in Canada is waived in the case of married ex-soldiers who can pay cash for 50 per cent. of the purchase price of the land and, in addition, equip and stock the farm.

(2) Each prospective soldier settler from Great Britain should have a minimum of £300 in the case of a married man at the time of actual settlement. This amount is necessary to cover the initial payment required by the Settlement Board's regulations, and to cover maintenance until returns from the farm are forthcoming. The bulk of this capital would not be required until the actual time of settlement on his own land, after his initial period of practical training with a farmer. During this period of training, if he were a single man, he would be put to little or no expense, and he would be working as a hired man for a practical farmer under the supervision of the Board, during which time he would receive his board and lodging and a wage according to his worth. (If totally inexperienced, he would only expect to receive a very small wage for, say, the first six months; if more or less experienced, he would receive the maximum wage accorded to men of similar experience.)

CHAPTER XVIII.

New Europe.

The boundaries of New Europe have been determined by a series of treaties contracted between the Allied and Associated countries and enemy Powers, and by subsequent treaties and agreements. These comprise :—

Name of Treaty.	*Contracting Parties.*		*Date.*
	On one Side.	*On the Other.*	
Versailles	Allied and Associated Powers	Germany ...	1919
St. Germain-en-Laye	Do.	Austria ...	1919
Neuilly	Do.	Bulgaria ...	1919
Trianon	Do.	Hungary ...	1920
Sèvres	Do.	Turkey ...	1920
Riga	Russia	Poland ...	1920
Rapallo	Italy	Jugo-Slavia	1920
Dorpat	Russia	Esthonia ...	1920
Do.	Do.	Finland ...	1920
Moscow	Do.	Lithuania ...	1920
Do.	Do.	Latvia ...	1920
Lausanne ... ... —	Do.	Turkey ...	1923

In so far as any of these treaties affected the frontiers of the country concerned they will be brought into account. The present aim is to deal separately with each country of Europe with a view to the solution of the following essential questions :—

(*a*) If the country was in existence before 1914, what has been the accession or loss of territory as a result of the Great War ?

(*b*) If the country was created as a result of the treaties. what are its present boundaries ?

(*c*) How far has the economic and strategical situation of each pre-war country been affected, or modified, by the treaties ?

(*d*) What are the main economic and strategic problems of the new countries of Europe ?

(*a*) The pre-war countries of Europe, of which Montenegro no longer exists, affected by the treaties, are :—

(1) France.
(2) Belgium.
(3) Luxemburg.
(4) Italy.
(5) Germany.
(6) Austria-Hungary.
(7) Russia (already dealt with in Chapter XIV).
(8) Greece.
(9) Bulgaria.
(10) Serbia (now part of Jugo Slavia).
(11) Rumania.
(12) Albania.
(13) Montenegro.
(14) Turkey.

(*b*) The new countries created by the treaties are :—

(1) Latvia.
(2) Esthonia.
(3) Lithuania.
(4) Danzig.
(5) Hungary.
(6) Poland.
(7) Czecho-Slovakia.
(8) Finland.

(1) France.

(i) **Alsace - Lorraine.** The largest territorial gain secured by France was the cession of Alsace-Lorraine (5,600 square miles). These provinces were taken away in 1871 after the Franco-German War. They are inhabited chiefly by Germans in the centre and east, and by French on the west. Nearly half the population of Lorraine and 6 per cent. of the people of Alsace speak French, but practically everyone is French in sympathy. The return of this region not only gives France 1,000,000 more inhabitants, it also gives her, in Lorraine, the richest iron-ore bed in Europe, which produced for Germany 21 million tons or 72 per cent. of her iron supply, and in Alsace great agricultural wealth.

(ii) **The Left Bank of the Rhine.** (*a*) The left bank of the Rhine is being occupied for fifteen years by Allied troops, who withdraw their forces from three successive zones at five-year intervals. (*b*) All fortifications in this region, as well as in a strip 30 miles east of the Rhine, have been destroyed. (*c*) The occupied territory is being governed by the Rhineland High Commission. (*d*) All Rhine traffic from the Upper Rhine between Basel and Lake Constance to the Moselle tributaries of Belgium is controlled by a Central Commission for the navigation of the Rhine, on which France has four representatives and the other powers, including Italy and Great Britain, two each. The port of Kehl is also joined to Strasburg for seven years, for the development of the facilities of the latter port.

(iii) **Luxemburg.** Luxemburg remains an independent state, but voted by plebiscite in 1919 to enter the French Customs Union. France, however, relinquished her right in favour of Belgium, and in 1921 an agreement was made for full economic union with Belgium for fifty years.

(iv) **The Saar Valley.** This region, which lies in the northern frontier of Lorraine, is essentially a coal basin from which Germany obtained 9 per cent. of her coal supply. France had before the war little coal. Consequently, she received the right to exploit the Saar mines in compensation for the damage to the mines of Lens and Valenciennes. The area is governed by a Commission of five, appointed by the League of Nations. After fifteen years a plebiscite must be held, when the inhabitants, exclusive of immigrants, who had attained the age of 20 and were living in the basin when the treaty with Germany was signed, shall vote for the maintenance of the rule set up by the treaty or for union with Germany.

It may be noted that (*a*) all the mineral resources of France and most of her manufacturing cities lie along the German frontier. (*b*) France has again become a Rhine Power. On the one side of the frontier is an increasing population of 60,000,000, on the other a static population of 40,000,000. To France a Rhineland Republic subject to her influence would mean a buffer state.

(2) Belgium.

In 1831, by the Treaty of London, Belgium was created an "independent and perpetually neutral state." This treaty was accepted by Holland, and was the "scrap of paper" torn up by Germany in 1914. The war made Belgium as often before, a "cockpit." She suffered, not for her own ambitions, but for the ambitions of others, because she stands across the highway that joins central and western Europe.

The territorial gains of Belgium include only small additions of territory along the German frontier, in the Eupen, Malmédy (the circle of Malmédy) and Moresnet districts. These additions were made in order to strengthen the eastern frontier of Belgium. Before the war all the German railways

were concentrated on this frontier, and one of her largest concentration camps was at Elsenborn, in this area. The disposition of the Eupen and Malmédy districts was decided by plebiscite on an open register.

Limburg. Belgium would like to possess Dutch Limburg on the southern shore of the Scheldt because of :—

(i) Its coal deposits.

(ii) Its strategic value to the military defence of the country.

(iii) Its relation to her eastern transportation system.

With this territory in her hands she could unite the Meuse and the Rhine by a canal, and additional canalization is vital to a country with the densest population in Europe. At present, Holland, by its control of both banks of the River Scheldt, largely dominates Antwerp, 50 miles from the mouth, and has tended to develop Rotterdam at its expense.

(3) Italy.

Italy secured in 1919 :—

(i) The Trieste region and the Istrian Peninsula. This includes the mercury mines of Idria, and gives her 1,700 tons of annual production out of a yearly world output of 4,000 tons.

(ii) The area of the Trentino as far north as the Ötzthaler Mountains, south-east of the Brenner Pass, with 230,000 German-speaking people.

(iii) Fiume. The problem of Fiume and its adjacent territory has occupied much of the attention of Italy since the Armistice. The districts in question include not only the Istrian Peninsula, but Dalmatia and the uplands of Carniola on the Italian frontier. Istria, apart from Trieste, an Italian island in a Slav sea, is predominantly Slav up as far as the Isonzo River. Italy is a narrow peninsula with a long narrow sea coast, and, apart from her dread of a strong Teutonic Empire on her south-east frontier, has always feared possible attack on her eastern Adriatic shore. In view of these facts, no one denied to Italy naval supremacy in the Adriatic, the ownership of Trieste, or a strong naval base at Pola.

Italy, however, went beyond this and claimed the whole Dalmatian coast. Moreover, by the Treaty of London (1915) she had been promised :—

(1) The Austrian Tyrol south of the Brenner Pass.
(2) Istria, Goritza, Gradisca, including Trieste, but *not* Fiume.
(3) Dalmatia to Cape Blanco.
(4) Valona in Albania.

Actually, in Dalmatia, there are 18,000 Italians to 611,000 Slavs. By the Peace Treaty, however, Carniola was joined to Serbia and Croatia to form Jugo-Slavia.

The well-organized port of Fiume has presented the greatest difficulty. Counting the suburb of Sushak it has a small Slav majority (26,000 Slavs to 25,000 Italians). It is, also, the only real harbour on the coast. Buccari is surrounded by steep cliffs, and has a dangerous entrance. Zengg is at the bottom of a precipital scarp, and suffers a furious wind for six months of winter. Spalato and Sebenico are separated by high mountains from the interior with which they are connected only by a narrow gauge line closed by snow for part of the winter. Cattaro and Zara have no railway.

Into the complex situation thus created came the Italian patriot-poet, D'Annunzio, who, in 1919, occupied Fiume with several contingents of Italian troops, and until late in 1920 was able to defy both the Italian and Jugo-Slav Governments, to raid Zara, to establish a postal service, to print money, and to rule an independent city-state. This occupation, however, eventually came to an end in November, 1920. Finally, in the spring of 1922, after the Treaty of Santa Margherita, Italian troops evacuated Sushak, and the Treaty of Rapallo was signed between Italy and Jugo-Slavia, under which Italy secured :—

(1) The railway junction of Treviso.
(2) Part of Carniola.
(3) All of Istria and its adjacent islands.
(4) The Pelagosa-Fiume islands in mid-Adriatic.
(5) The island of Lagosta off the southern end of Dalmatia.

At the same time Fiume became a free city with direct territorial connection with Italy along a coast strip from Lenci to Rubesi, and Zara a free city under Italian sovereignty.

In January, 1924, both treaties were modified by an agreement under which :—

(1) Jugo-Slavia accepted the annexation of Fiume by Italy.
(2) The basin of Thaon di Reval in the port of Fiume is to be leased to Jugo-Slavia for 50 years.
(3) The railway station of Fiume becomes like other international stations on the Italian frontier.
(4) The boundary between Fiume and Porto Baros is as laid down in the Treaty of Rapallo, the swing bridge between Porto Grande and Porto Baros being in Italian territory, and Jugo-Slavia securing complete sovereignty over the waters of the Fiumara Canal.

Italy may be said by this to have secured her control in the Adriatic, though the present situation, as regards Jugo-Slavia, has been compared to the handing over of the Belfast Docks to Southern Ireland.

(4) Germany.

The one factor that is of immediate concern to Europe in considering the present territorial holding of modern Germany is the distribution of German-speaking people on the map.

Before the war Germany and Austria contained the principal block with an extension of 2,600,000 German-speaking people in eastern and central Switzerland, a much smaller group in Schleswig-Holstein, as well as scattered islands in southern Hungary, Russia, and the Baltic provinces.

Outside Germany proper, the greatest number of Germans compactly distributed under the Hapsburgs of German origin was in Austria-Hungary. The policies of Berlin were largely reflected in Vienna, and the scornful attitude of the Governments to alien minorities, *e.g.*, to the Danes of Schleswig (1866), or the Slavs of Bosnia and Herzegovina (1908) differed little.

In Southern Russia Germans were largely artisans, merchants, engineers with technical skill ; in the Baltic provinces they formed the landlord class, owning about three-fourths of the land.

At Kiev in the northern Ukraine they possessed the steel mills, in Transylvania, surrounded by Rumanian peasantry, they were given a privileged position by Hungary.

Further, had the Treaty of Brest-Litovsk not been repudiated by the conditions of the Armistice of November, 11 1918, a German prince would to-day be sitting on the throne of Lithuania, with Latvia and Esthonia as mere political dependencies, while Russia would be, if not part German, essentially Germanized in politics and trade.

Let us see in how far pre-war Germany in the European continent has been affected by the Treaty of Versailles.

She was, in addition, deprived of all her colonies. These included :—

(1) *In China.*—(*a*) The privilege of maintaining a postal service. (*b*) Concessions at Hankow, Tientsin, Kiaochow. (*c*) The privilege of maintaining Legation Guards at Pekin. (*d*) The Shantung Railway, mines, and port rights. (These latter were first transferred to Japan and then retransferred to China as a result of the Washington Conference).

(2) *In the Pacific.* — (*a*) The Marshall, Mariana, and Caroline Islands, given to Japan. (*b*) Kaiser Wilhelm's land and the Bismarck Archipelago, allotted to Australia. (*c*) German Samoa and the Solomon Islands, handed to New Zealand. (*d*) Nauru Island, now a possession of Great Britain.

In Europe Germany lost :—

Territory.	*New Owner.*	*Area. Square Miles.*
(*a*) The coal mines of the Saar Valley ...	France	730
(*b*) Eupen, Malmédy, and Moresnet ...	Belgium	384
(*c*) Part of the Silesian coalfields ...	Poland	1,240
(*d*) The North-east portion of East Prussia (Memel or Trans-Niemen district)	Lithuania	910
(*e*) The province of Posen and its adjacent territory	Poland	16,000
(*f*) Danzig	Free City of Danzig ...	729
(*g*) Part of Schleswig	Denmark	1,550
(*h*) Alsace-Lorraine, including Strasburg and control of the Rhine river traffic	France	5,600
	Total	27,143

The total area reduction is thus 13 per cent., the population decrease 12 per cent. of her pre-war total. Some of these losses have already been dealt with, some still remain to be considered. These are :—

(i) **The Silesian Coalfield.** The loss of part of this coalfield was inevitable, even though it meant the weakening of Breslau and adjacent towns. The whole area of Upper Silesia was, in March, 1921, submitted to a plebiscite, and though 65 per cent. of the population are Poles, the decision on the whole was favourable to Germany; 1,240 square miles and a population of 892,000 out of 2,000,000 was, however, transferred to Poland. The coal production of the region was in 1913 45 million tons, or more than one-fifth of the whole production of Germany. Silesia also gave Germany 57 per cent. of her lead ore, and 72 per cent. of her zinc.

(ii) **Memel, or Trans-Niemen District of East Prussia.** This transfer was justified by its Lithuanian population. Memel is the outlet of the Niemen basin, and the terminus of a Russian railway. For a long time it was held by Allied warships, but was finally handed over to Lithuania in February, 1923, subject to conditions which guaranteed the use of the port to both Lithuania and Poland. As, however, the final arrangements did not secure the sovereignty of Lithuania over her own territory, either in legislation or administration, she refused to accept the port, and the matter was satisfactorily dealt with by the League of Nations.

(iii) **The Posen Area.** This is a rich industrial region, which also contains valuable agricultural and forest lands and coal mines—producing for Germany in 1913 one tenth of her grain and one sixth of her potatoes.

(iv) **Danzig.** The separation of German East Prussia from the rest of Germany was made in order to provide Poland, with a population of 25,000,000, with a port (Danzig), and a corridor to the sea along a strip of land west of the River Vistula to the Baltic.

The corridor itself is only 30 miles wide, and the port (Free Town) of Danzig is governed by a High Commissioner appointed by the League of Nations. Since December, 1922, Danzig has been a unit in the Polish Customs system. Both the Poles and the East Prussia Germans have free use of the railroad from Königsberg across the corridor to Schneidemühl and Berlin, of the Baltic, and of the internationalized Vistula.

The future of Danzig depends on the dredging of the Vistula, which is at present broken up into separate channels by

shifting sand bars, and the building of branch canals to touch the Russian river system. Water transport is cheaper than rail transport. If Poland can send her products and manufactures by river she will do so, but in 1914 the railway traffic to Danzig was five times as large as the river-borne traffic.

Danzig is connected up with England by no less than eight steamship lines. Great Britain gives herrings as well as coal for local use, in exchange for timber and beet-sugar.

(v) **Schleswig.** A plebiscite was held in Schleswig, which was divided into two zones, north and south. The southern zone voted to remain German, the northern to return to Denmark.

(vi) **Allenstein and Marienwerder.** Both districts lie in East Prussia, and on a plebiscite both decided to remain German.

Besides the territorial losses Germany was required to pay by the Treaty of Versailles :—

£50,000,000 a year in 1921–1925.
£120,000,000 thereafter.

This was arranged as interest on gold bonds amounting to £2,000,000,000, which Germany was to deliver to the Allies. A second issue of £2,000,000,000, at 5 per cent., was to be made when the Reparations Commission thought Germany could pay the interest.

At the same time, to avoid business troubles liable to grow out of the indefiniteness of the total, it was fixed at £11,000,000,000, payable in 40 years without export tax. It was failure to comply with these arrangements that brought about the French advance into the Ruhr valley.

(5) Austria.

Out of the old Empire of Austria-Hungary were formed, in 1918, the separate Republics of Austria and Hungary. At the same time the northern and southern Slavs set up new states ; the Rumanians of Transylvania became part of the new Rumania, Galicia joined on to Poland. In this way the pre-war population of the Empire was reduced from 51,000,000 to 6,000,000, and by the Treaty of St. Germain-en-Laye the area was brought down from 116,000 to 32,000 square miles.

Her losses comprise :—

Territory.	*New Owner.*
Hungary	Republic of Hungary.
Southern Tyrol	Italy.
Istria	Italy (Treaty of Rapallo).
Dalmatian mainland (less Zara and Fiume)	Jugo-Slavia.
Zara, Fiume	Italy.
Bohemia and Moravia	Czecho-Slovakia.
Galicia	Poland.
Crownland of Bukovina	Rumania.

The new fragments are geographically, as well as ethnically, on a sounder basis. The Bohemian plateaux and valleys have a distinct geographical unity, while Galicia now has a natural southern boundary in the Carpathians, and a south-east densely populated valley continuous with the Vistula Plains.

Only a small portion of Austria was left to plebiscite. This was in the Klagenfurt (Tyrol) area. The basin itself is enclosed by high land, but Slavs (Slovenes) live in the south, Austrians in the north. The plebiscite was taken in October, 1920.

As soon as the southern portion voted to remain in Austria, it was unnecessary to take a vote in the north. Austria also gained a small area, 25,000 square miles, at the expense of another country (Hungary).

In the old Austria many of its seventeen provinces had great non-German minorities. Of the six provinces of the new Austria, all have large German majorities.

Province.	*Percentage of Germans to Whole Population.*
Lower Austria	96
Upper Austria	100
Salzburg	100
Tyrol (Austrian)	85
Vorarlberg	95
Styria	90
Carinthia	90

There are, however, certain weaknesses.

(i) Far too many people live in the large towns of Austria. Vienna now holds $33\frac{1}{3}$ per cent. of the population.

(ii) Austria must import all her grain supplies, practically all her coal, all her rubber, chemicals, fats, oils, wool, copper, petroleum, along poor railways and canals.

(6) Hungary.

The new Hungary is a small state (35,000 square miles), with a small population (7,000,000), as compared with 125,000 square miles and a population of 20,900,000 in 1910. As in the case of Austria, the capital, Budapest, has a disproportionately large population of 900,000.

Hungary has lost her mountain boundary on the north, east, and south-west, and is now a flat plain (the Alfold), with little wood and practically no water power. She has only agricultural products to pay for manufactured goods.

(7) Czecho-Slovakia.

The country of the Czecho-Slovaks, comprising the three provinces of Bohemia, Moravia, and Slovakia is a long, narrow strip running west and east athwart a network of railroads that carry most of the commerce of Europe.

It is 600 miles long, and only from 50 to 125 miles broad from north to south. Czecho-Slovakia is bordered by five nations, of which three (Poland, Russia, Germany) touch the sea, and two (Hungary and Austria) are, like herself, landlocked and on the River Danube.

Moreover, of her 14,000,000 people, 35 per cent. are of race and language alien to the Slav, including 4,000,000 Germans, of whom 1,700,000 are in western Bohemia, 750,000 Magyars in Slovakia, and 400,000 Ruthenians in the eastern districts bordering the Carpathians.

Czecho-Slovakia must make alliances, both military and commercial, with similar small states in central Europe, and agree with the countries bordering the Danube as to the use of that waterway.

This might lead to a "Danubian Confederation," an extension of the Little Entente formed by an agreement between Czecho-Slovakia, Jugo-Slavia and Rumania. One of the great difficulties of the nation is, however, the uniting of the various diverse elements.

Bohemia and Slovakia differ radically. Their literary language is almost the same, but while in Bohemia literacy is very high, in Slovakia it is very low. Further, they have been since 1031 separate political units.

While Bohemia is a basin plain bordered by an agriculturally productive mountain valley, partly underlain by

deposits of coal, lignite, iron, nickel, cobalt, copper, with highly developed industries aided by the coking-coal of Teschen, and the difference between the Czech and Moravian farmers is very slight, Slovakia is rough and more thinly populated, a land of small towns, farmers, shepherds, and lumbermen, rather than of mills and shops and cities and railways.

Of all the groups the Slovaks—more oppressed than any subject race of Hungary—are the least important and the least capable.

Unity may arise from joint sympathy in the struggle against the Germans and the Russians respectively.

Czecho-Slovakia has also the disadvantage of being land-locked. The Danube, which borders the country for 100 miles, flows past so many states that she is not in any sense a Czech river, while the Moldau and other tributaries of the Elbe need deeper channels. The great hope of Czecho-Slovakia is the right of free passage of goods and persons, and means of transport to her natural outlets. If this be guaranteed along the Danube, along the canals joining her streams to the Elbe, along the Elbe itself, Czecho-Slovakia, by reasonable use of the ports of Danzig, Trieste, and Fiume as well as of Hamburg and Stettin, is as well placed as any state in central Europe. She is near the agricultural nations of Hungary and Russia, she can supply most of the needs of the Balkans in manufactured goods, she was untouched by the war, she has from 85 to 90 per cent. of the soft coal and 60 per cent. of the iron-ore of pre-war Austria. Moreover, in 1919, Czecho-Slovakia was the only sugar exporting country in Europe, and in 1913 Bohemia and Moravia produced together 8 per cent. of the world's total sugar-beet sugar.

(8) Jugo-Slavia.

The Balkan countries, of which Jugo-Slavia is the largest, were long under the control of Turkey. By a series of wars they gained first partial and later total independence. Finally, after the two Balkan Wars of 1912 and 1913 and the Great War, they secured an entirely independent status. The preponderating racial element in the Balkans is Slavic. The Serbians and Bulgars, who differ only slightly in language, are Slavs. There are Slavs all along the Dalmatian coast to

the very gates of Trieste. To the north Slavs live beyond the Danube and the Save, while a broad Slavic belt extends across the Balkan range. Even in Rumania, where the people are mixed Russo-Slavs, the latter element is in the majority, while Slavic culture and influence has penetrated into Greece.

The prevailing ambition of Serbia has always been the welding together of the dis-united Jugo-Slavs, who before the war were under six different governments.

This ambition was at last realized in 1919. The new state of Jugo-Slavia, or Kingdom of the Serbs, Croats, and Slovenes, consists of :—

(1) The former kingdom of Serbia.
(2) The former kingdom of Montenegro.
(3) The former Austrian districts of Bosnia, Herzegovina, Croatia, Dalmatia, and Slovenia.
(4) Part of western Bulgaria.
(5) Part of the former Hungarian Banat of Temesvar.

The boundary problems of the new country are complicated by :—

(*a*) The difference between the racial and geographical frontiers, owing to the fact that the Slavs are so intermingled with other racial elements, which, for example, include Mohammedan Albanians, and Magyars.

(*b*) The presence of racial minorities in Jugo-Slavia—Germans and Bulgars—the latter in districts too close for strategic safety to the main railway line from Belgrade and Nish southward to Salonica.

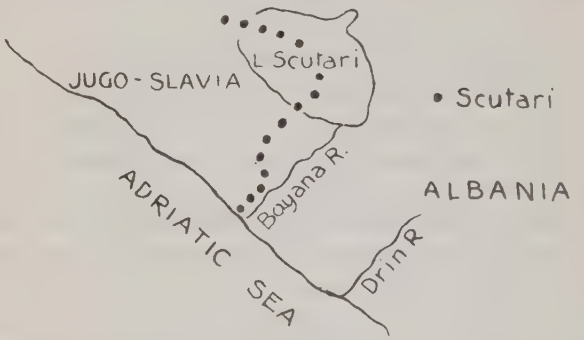
(*c*) The desire of a " window on the sea." This is at the bottom of the Fiume-Zara controversy (already dealt with) and of the question of Scutari, and explains the feeling towards an autonomous Macedonia with Salonica as its capital, instead of, as at present, a " free zone " in a Greek port.

(*d*) The difficulty of uniting the three portions of the community on a uniform basis of government agreed upon by the Pact of Corfu (July, 1917). Many Croats would like an independent republic within a federated kingdom.

The special difficulties of Jugo-Slavia are, apart from the general problem of relations with Italy on the Adriatic :—

Scutari. Scutari lies on the southern end of the Lake of the same name, and just north of the Drin valley, which is the natural Adriatic outlet of all southern Serbia, from Nish to the Greek frontier. Parallel with the River Drin is the River Boyana, flowing out of the south-eastern end of Lake Scutari, the outlet of all that region, which is of vital importance for the defence of the mountainous south-west boundary.

Scutari, the River Drin, and the southern bank of the Boyana are included in Albania.



The Banat of Temesvar. This territory has a close connection with Belgrade, the capital of Jugo-Slavia, which lies very near the frontier, and is open to attack across the exposed Danube plain. By securing the western half of the Banat, the security of the capital, Belgrade, is increased, and with the ownership of the Baika, north of the Danube, a valuable bridgehead is obtained. The Banat can also supply Jugo-Slavia with much needed grain.

Macedonia. Practically the whole of peasant Macedonia is united against the authority of Bulgaria, Serbia, and Greece to form an autonomous Macedonia with its capital at Salonica. This is not a sporadic revolt, but a widespread movement with a definite organization (see *The Times* of January 4, 1924).

In addition to these ethnical problems, the internal difficulties of Jugo-Slavia are many. She has little or no coal, she has turbulent tribes in her southern half, the way of the Danube River, her northern boundary, is too roundabout

for ordinary trade. Her future strength must lie in alliances with other Balkan States, with which she is economically complementary.

(9) Rumania.

The main racial element of Rumania is Rumanian—Wallachs, speaking Rumanian, a tongue based on low Latin (allied to French, Spanish, Italian), and claiming to be descended from the ancient Romans. They exist in their purest form among the nomadic Vlachs of Macedonia, Albania, and Thrace. There are also Magyars in East Transylvania and Central Moldavia, and a very large number of Jews.

As a result of the war Rumania has now secured all the Austrian crown province of Bukovina (except a small portion which goes to Poland to give her the railway junction of the line from Zaleszcyki to Kolomea) (annexed November, 1918), where the Rumanians number one third of the population, the rest being Germans or Ruthenians from Galicia.

(*b*) Bessarabia (formerly Russian), between the Pruth and the Danube (annexed March, 1918).

(*c*) The eastern portion of the Banat. It may be noted that the new boundary cuts across all the rivers flowing westward, as well as across the railways and canals.

(*d*) The Dobrudja, part of which was won from Bulgaria by the Treaty of Bukarest (1913).

(*e*) Austrian Transylvania (annexed December, 1918).

Rumania is a very rich country, rich not only in agricultural products, grain, hemp, flax, tobacco, cotton, but in petroleum, timber, copper, iron, lead, coal.

Her natural affinity is with Poland. Bukovina abuts on Galicia, all of which now belongs to Poland, and the two nations occupy a belt from the Baltic to the Black Sea.

(10) Bulgaria.

In spite of a deficiency in mineral wealth, the Bulgarian nation rose notably in the twenty-five years before the Great War. Coal and iron mines were developed, railways were extended, and the commerce of the country increased 500 per cent. A population of 3 millions in 1888 grew to $4\frac{1}{4}$ millions in 1910, and was further increased by 130,000 people as a result of the Balkan Wars of 1912 and 1913.

Unfortunately for herself, Bulgaria became too ambitious, and was obsessed with the idea of controlling the whole of the Balkan peninsula. The first stage in the drama began in 1912, when Bulgaria made secret treaties, first with Serbia and then with Greece and Montenegro, with a view to driving the Turk out of Europe. The opportunity of attacking Turkey was seized in October, 1912, when she was enfeebled and discouraged by her recent war with Italy.

The war was a great success for the Balkan allies. The Turk retained only a toehold in Europe, and by the Treaty of London (May, 1913) gave up all territory north and west of a straight line from Enos on the Ægean to Midia on the Black Sea. She also ceded Crete to Greece, and allowed the Great Powers to determine the future of her other Ægean islands and of Albania.

This treaty, however, satisfied none of the Balkan allies.

(1) Bulgaria wanted, and had been promised, most of the captured territory.

(2) Serbia, blocked in Albania by the Powers, who, in 1913, established an independent Albania, sought an outlet to the sea and claimed Salonica and its Macedonian hinterland, running counter to the desire of Greece, who had captured Salonica and wanted to retain it.

(3) Montenegro was annoyed at receiving practically nothing.

(4) Rumania, jealous of Bulgaria's gains, asked for the southern Dobrudja at Bulgaria's expense.

The outcome of this jealous bickering was the second Balkan War. Turkey united with all the Balkan States against Bulgaria. The result was a foregone conclusion. When Bulgaria, after two months' fighting, gave in, in July, 1913, the Rumanian Army was within 20 miles of Sofia, and Serbia was closing in on the west. Consequently, a new treaty was signed at Bukarest, whereby :—

(1) Bulgaria surrendered Northern Macedonia to Serbia.

(2) Greece secured Salonica and Southern Macedonia.

(3) Bulgaria retained Strumitza in eastern Macedonia and about 70 miles of coast west of the Maritza River, but lost Kavalla.

(4) Montenegro got the western half of Novi Bazar.

(5) The southern Dobrudja was ceded to Rumania.

Bulgaria sullenly waited her turn to retaliate. Her apparent chance came in the Great War. In October, 1915, Bulgaria joined Turkey and the Central Powers. For nearly three years Bulgaria bore the main brunt of the Salonica campaign. In 1918 she was utterly routed.

The military terms of the Treaty of Neuilly (1919) determine the present boundaries of Bulgaria.

(1) She renounces all right to territories won by her during the Balkan Wars.

(2) She agrees to protect alien minorities within her borders, such protection being also guaranteed to Bulgarian minorities in other states.

(3) She agrees to destroy her vessels of war, except four torpedo boats without torpedoes and torpedo apparatus for police and fishing duties along the Danube and on the coast, to maintain no air force and to submit to restrictions with regard to war materials. Further, all mobilization measures are forbidden, and service in the ranks is for a minimum period of 12 years.

Bulgaria's present position is not too easy. She is essentially a land of farms, without great mineral deposits (she has very little coal, iron, copper, and zinc) or manufacturing towns. Sofia has only 100,000 people, Varna, her sea port, on the Black Sea only 40,000. The bulk of her population lives on a narrow strip 100 miles wide south of the Danube. She has been piling up a war debt and losing men since 1912.

Moreover, Bulgaria, by holding the whole width of the land between the Ægean and the Black Sea, bounded on the north by the Balkans and on the south by the Rhodope mountains, became a corridor state, and all European roads to Turkey from the north and from the south-west had to pass through her country. She also became the defence of Europe against a possible Turkish attack, so that later, when she joined the Central Powers, she was the natural link between Germany and her Asiatic ally. Bulgarian control of the Nisava and lower Morava valleys, after the military occupation of Serbia in the autumn of 1915, secured the one natural line of gentle gradient running diagonally across the Balkans.

Moreover, by coming down the lateral valleys fed by the tributaries of the Vardar, Bulgaria could cut the Serbian Army off from its base at Salonica, and compel it to retire, not to the Danube line, which was already held by German and Austrian troops, but to the fastnesses of Albania.

Her new boundaries still offer certain difficulties. Generally speaking, she has lost the whole of her Ægean coastline, though she is allowed " free economic transit " for the commerce of western Bulgaria along the railway to Dedeagach with a " free zone " at that port, and to Kavalla and Salonica farther west. This was granted by the Thracian Treaty of 1920, and confirmed by the Treaty of Lausanne.

In the interior on her western frontier she has lost to Serbia four areas predominantly Bulgarian—the Tsaribrod district, the Bosilegrad district, the Strumitza district, and a small area in the Pinsk valley on the north-west, which was her first line of defence against Serbia, on the ground that the possession of these places by Bulgaria would be a menace to the Nish–Salonica Railway. Consequently, the frontier now comes within 35 miles of Sofia, her capital, and most important strategic position, lying as it does on the Paris—Constantinople Railway and commanding the valley of the Upper Isker and Maritza. Her boundary with Greece in Western Thrace runs along a line of hills north of the coastal plain, separating the valleys on either side of the ridge. The dividing line seems obvious. But every summer the shepherds from the southern plains have driven their flocks of sheep for summer pasture into the mountains, returning every autumn to their old home. They can no longer cross the boundary.

If, however, the Treaty of Neuilly has caused the political boundaries to more or less correspond with the ethnical boundaries, it will bring people of a similar race and religion under the same flag, and will prevent the beginning of irredentist movements that arise when peoples are separated from their kinsmen across an international boundary.

This has always been a fruitful source of trouble in the Balkans. It is the minorities who have stirred up hatred. If this hatred can be eliminated, and an economic revival sets in, Bulgaria will have a future, " For she is the pivot state of the Balkans, and her geographical position, her

close affinity with Macedonia, and her associations with both Russia and Turkey make her a factor in south-eastern Europe, whose weight and influence cannot be measured in terms of area or population."

(11) Albania.

Albania lies 45 miles distant from Italy, just opposite the heel of the Italian boot. If the Adriatic becomes an Italian lake, Albania must become an Italian sphere of influence.

Albania is a mountainous country with few roads—there is only one in Northern Albania—no railroads, and only one good port, Valona, of which Italy holds the peninsulas on either side and the islands that guard the approaches. In the north the Albanian peasant is dependent on Jugo-Slavia for his market, in the south there is a good deal of pro-Greek feeling.

(12) Greece.

The Greece of 1924 is not the Greece of 1919. After the Great War, as a result of her final participation on the side of the Allies, Greece secured :—

(1) Macedonia, from Salonica to Lake Ochrida, and the Albanian frontier on the west to Uskub on the north and to the Strumitza region of Bulgaria on the north. This is an indefinite territory, and is liable to local control by " comitadjis " or bands of raiders, attracted sporadically to one or other of the Balkan states.

(2) Thrace, as far as the Black Sea, with consequent control of the entire southern littoral of the Balkan peninsula, and inclusive of the chief towns of Adrianople and Kirk Kilisse. This precluded the possibility of a Bulgarian or Turkish base for submarine attack on her long coast line. This territorial accession was restricted by :—

(*a*) Her guarantee of an economic Bulgarian outlet to the Ægean Sea.

(*b*) The inter-nationalization of the River Maritza.

(*c*) Her guarantee of the protection of racial minorities.

(3) Imbros and Tenedos, in the Ægean to add to Lemnos, Samothrace, Mytilene, Samos, Nikaria and Chios, which she had already won as a result of the Balkan Wars.

(4) " Rights of sovereignty " in the Smyrna region.

The total effect of this new arrangement and of the Treaties of London and Bukarest (1913) was that Greece doubled her area and her population (the latter to 5,000,000). As the result of her ill-fated advance into Asia Minor she has lost Smyrna and its adjacent lands, she has retired beyond the Maritza River, and is without Imbros and Tenedos.

(13) Poland.

None of the constituted nations of the world has had so great a past as Poland. Even so late as 1740, she stretched from the Baltic almost to the Black Sea. Her eastern ambitions were her undoing. She could not absorb her Russian minorities, she could not check the westward movement of Prussia, and the three partitions of her territory (1772, 1793, 1795) between Russia, Austria, and Prussia not only paralysed the nation but humiliated the national pride.

Despite revolutionary movements in 1830 and 1863 she was, until the Treaty of Versailles, in chains.

Let us first of all consider the outstanding geographical and historical features of Poland, which make the Polish problem a vital international difficulty.

(1) Poland lies in a great plain without natural frontiers, facing both Russia and Germany.

(2) The Poles are Slavs of western, not eastern, culture.

(3) Poland, if she becomes a great nation, will naturally desire to include within her frontiers all that portion of Europe which was ever hers. At the Peace Conference she asked for Danzig, Eastern Galicia and even East Prussia.

(4) Poland was once divided between Germany, Austria, and Russia, and there is not likely to be much love lost between her and Germany or Russia, her two strongest neighbours.

(5) The Polish corridor along the western side of the Vistula to the Baltic is very narrow. If widened, it would be at the expense of Germany.

(6) The eastern borders of ethnical Poland on which the population of Poland is growing at a rapid rate, are at present ill-defined. There are no sharp lines of religion, race, or natural consciousness. The best strategic position is a line drawn through the Pripet marshes, but this is well beyond the area of strictly Polish speech.

The war of 1920 between Poland and Soviet Russia, in which Poland, with allied help, was victorious, was ended by the Treaty of Riga (March 18, 1921). The Treaty of Riga only intensifies the difficulty.

It granted to Poland the whole hinterland of Lithuania, and the signature of the treaty was immediately followed by the Polish occupation of Vilna in the heart of the country in dispute, notwithstanding the fact that the League of Nations had just arranged a truce between Lithuania and Poland. Peace with Russia is commercially sound, as before the war Russia was the best customer for Poland's textile goods.

(*a*) *Poland and Danzig.*

The corridor to the sea so anxiously desired by Poland was so Germanized before the war, that its breadth was reduced to 50 miles. Along the corridor runs the Vistula, and along the Vistula to and from Danzig and its port Neufahrwasser will come the cotton and wool and machine tools for Polish mills and factories, and agricultural implements for Polish farms, in exchange for Poland's timber, salt, hay, cement, beet sugar, and grain. To the Vistula, as well as the Bug and Narew, Germany, as well as all other powers, is allowed free access under the international waterways agreement. Eventually the Vistula may link up with the navigable waters of the Mazurian lakes and with the Russian rivers.

(*b*) *Eastern Galicia.*

On the south-eastern frontier of Poland lies the former Austrian province of Galicia. The western half of Galicia is Polish, the intelligentsia of eastern Galicia is also Polish, and its territory was once part of the Polish dominions, but the majority of the population (59 per cent.) is Ruthenian. Consequently, Poland would ask for an extension southward, so as to join her Galician province with Rumania, and thus create a joint military "barrage" from the Baltic to the Black Sea. On the other hand, the absorption of all so-called Ruthenians is desired by Russia.

The situation in eastern Galicia is always carefully watched by the Allied Powers, owing to British, French, and Belgian

investments in its oilfields. If Poland secured her junction with Rumania, she would control the headwater of the Dniester, and gain an outlet for her trade on the Black Sea.

(*c*) *The Plebiscite Areas.*

These were three in number :—

Region.	*Result of Vote.*
(1) Mazuria (Allenstein)	To Germany.
(2) West Prussia (east of Vistula) ...	To Germany.
(3) Silesia	Mainly to Germany, but afterwards divided between Poland and Germany.

(*d*) *Teschen.*

This small duchy provides the coking-coal for both Poland and Czecho-Slovakia, the mines lying in the western or Czecho-Slovakian portion. The division was made by the Council of Ambassadors in July, 1920, and December, 1921.

Poland holds the headwaters of the Vistula, Czecho-Slovakia retains the mines, but delivers part of the output to Poland. This decision was accepted by both countries, and the frontier was to pass north of the commune of Javorina, which both countries now claim. The whole matter is now *sub judice* by the International Court of Justice at the Hague.

Poland has all the possibilities of a great state. She starts with a population of 27,000,000. Her territory is drained by a great stream capable of improvement from the Baltic to her capital, Warsaw, and far beyond, and navigable with its tributaries for over 5,000 miles.

She has 300,000 square miles of forests. Her soil has been long known for its fertility, she has abundant waterpower, she has the cheapest labour in Europe, and 77 per cent. of the coal output of Silesia, she has inherited the German and Russian railway systems. She has her domestic problems, her 3,000,000 Ghetto Jews, forming a state within a state, her 1,000,000 Ruthenians naturally linked to their 30,000,000 brethren in the Ukraine, her 1,000,000 White Russians, but she is self-contained, she is alert, she is keen, she is independent (she has not touched the "Little Entente"), and she is strategically, by virtue of her geographical position, the key of Eastern Europe.

(14) Lithuania.

Lithuania is a poor country with a small population (only 2,000,000) whose commercial organization is almost entirely in foreign hands. The country lies north of the Niemen River, which is to the Lithuanians as the Rhine is to the French.

Her territorial problems include the settlement of the disputed frontier with Poland in the Suwalki and Vilna areas, on which no agreement has been reached, though the Poles occupy Vilna, the Jerusalem of Lithuania, and on the east where Lithuanians and Russians inextricably merge, though this boundary was defined by the Treaty of Moscow (July, 1920). Lithuania is the second of the five new states that have evolved since the Great War, and, having been recognized by the Allied and associated Powers (December, 1922), are maintaining themselves on the borders of the old Russian Empire.

The Lithuanians claim that Lithuania consists of the former Russian provinces of (1) Kovno, (2) Vilna, (3) part of Grodno north of the Niemen River, (4) part of Suwalki, and (5) part of Courland.

(15) Esthonia and (16) Latvia.

At the beginning of the Great War Esthonia, Livonia, and Courland, known as the Baltic Provinces, were part of the Russian Empire. This region has now been formed into two states :—

(1) Esthonia.—The province of Esthonia, and more than half northern Livonia, with the adjacent lands.

(2) Latvia.—The rest of Livonia and Courland.

Esthonia was provisionally recognized by Great Britain, France, and Italy in May, 1918. The Supreme Council of the Ambassadors ratified this recognition in January, 1921.

The boundary between Esthonia and Russia was defined by the Treaty of Dorpat (February, 1920). Esthonia is less than half the size of Great Britain. Ethnically it is essentially Esthonian (over 90 per cent.).

Latvia, or the country of the Letts, was also formally recognized in 1920. Her area and her population are only slightly larger than those of Esthonia.

	Area, sq. miles.	*Population.*
Esthonia	7,600	512,000
Latvia	28,100	2,900,000

The chief industry of both countries is agriculture.

It is, however, difficult to reconstitute an agricultural country if the landlords are removed and if the country has been overrun by fire and sword. Prior to the Great War over 50 per cent. of these provinces were held by 13 per cent. of the population, mainly by the German Balts or Baltic barons. Moreover, between 1914 and 1917 the population of Courland decreased from 800,000 to 300,000. The Balts have vanished, and the population is now again increasing, but the problem of resettlement and reconstruction is not easy. Except along the few railways, there is little transportation, and until 1918 Esthonia at least had no paved roads. The strength of the two states would seem to lie in an economic union to include Lithuania. But they speak different languages, and have no common history or political tradition.

As it is, they possess the railheads of much of interior Russia in Riga, Libau, Windau, and Baltic Port, and they have raw materials, like flax and wool, to export. To Great Britain their security means much. The Baltic has always been a focus of British trade. It may mean more in the future.

These words were written in October, 1923. In January, 1924, an economic treaty was signed between Esthonia and Latvia.

(17) Finland.

The chief territorial problem of Finland is on her eastern frontier, long in dispute with Russia.

The main points at issue are the matter of an outlet on the Arctic Ocean (Pechenga), and the disposition of eastern Karelia, whose people are in close ethnical relation with the Finns.

The Treaty of Dorpat (October, 1920) has still left a few doubtful sectors of country. Its boundary articles gave Finland a strip of the Arctic coast and connecting territory, and provided for an autonomous eastern Karelia, including Archangel and Olonetz (north-west of Lake Ladoga). The Karelia frontier, however, is still a matter of dispute.

The Pechenga region is important to Finland, because of its coast; the action of the Gulf Stream keeps the ports of

Pechenga and Alexandrovsk (250 miles north of the Arctic Circle) open all the year round, when all the remaining ports of the Baltic and the White Sea are closed by ice in winter.

To secure this ice-free port Russia built the Murman Railway to Catherine Harbour, Alexandrovsk. The loss of the Baltic ports (except Petrograd) has accentuated even further the value of a " warm water " harbour in the north.

Much of Finland is teak and tundra, great marsh, bog, and dense forest, and though her people are farmers, only 10 per cent. of her land is under cultivation. The Finns are sailors, also, and fishermen, for Finland, apart from her deeply indented coast, has 40 times as much inland water as France.

Finland's great problem is that she is sandwiched between alien Sweden on the west and alien Russia on the east.

Consequently, the Aland Islands, 75 miles from Stockholm and 20 miles from the Swedish coast, have been a constant bone of contention. Their strategic value is due, not only to their geographical position, but to their good harbours. In 1809 Sweden ceded them to Russia, though the population was and is almost exclusively Swedish. The League of Nations has given them to Finland. In 1918–1919 Finland, with the Archangel sector protecting her flanks, stood as a firm barrier against " Red " Russia.

NATIVE RACES OF THE COMMONWEALTH.

NORTH AMERICA.

Canada.

(*a*) North American Indians on Government reservations to the number of 100,000. Of these, the most important are the Iroquois, Hurons, Algonquins in Ontario and Quebec, the Miemacs and Blackfeet in Alberta, and the Siwashes in British Columbia.

(*b*) Eskimos on shores of Arctic Ocean.

NEWFOUNDLAND.

(*a*) Algonquins in interior.

(*b*) Eskimos in extreme north and in Labrador, north of Hamilton Inlet.

WEST INDIES and SOUTH AMERICA.

Caribs.—A few of the original population still exist in St. Vincent, Dominica, British Guiana. (The present West Indian native was introduced from West Africa from 1517 onwards.) There are also East Indian and Chinese immigrants in Jamaica, Trinidad, and British Guiana.

AUSTRALASIA.

(*a*) Bushmen in Australia.

(*b*) Polynesians, *Maoris* in New Zealand, the allied Morioris in the Cook and Auckland Islands, and the natives of Samoa.

(*c*) Melanesians—Papuans of New Guinea. (The line of longitude of 180° E. and W. roughly divides the Polynesian and Melanesian groups.)

AFRICA.

1. *North Africa.*

(*a*) Arabs in Aden, the Sudan. (Nomadic Arabs are called Berbers. The Arabs on the western border of the Sudan are termed Senussi.)

(*b*) Somalis in Aden.

(*c*) *Negroes:* Shilluk, Dinka, Nuer and Nyam—Nyam in the Sudan.

2. *East Africa.*

(*a*) *Pigmies* in Western Uganda.

(*b*) *Nilotic negroes* on east shore of Lake Victoria Nyanza. in Kenya and in North Uganda.

(*c*) *Bantu negroes.* (These form 60 out of 71 tribes in Tanganyika.)
(*d*) *Hamitic negroes* (from Arabia): Gallas, Somalis, in grass lands of north-east.
(*e*) *Mixed negroid peoples: Masai*, Sarribura, Nandi, Suk, Turkarra, etc.
(*f*) *Arabs. Swahilis* in south.

3. *West Africa.*

Nilotic negroes—often mixed—Fulas and Mandingos in Gambia; *Hausas*, Nupes and *Yorubas* in Nigeria.

4. *Central and South Africa.*

(*a*) *Bushmen* in South-West Africa and Kalahari Desert.
(*b*) *Hottentots*—probably cross between Bushmen and Harritic negroes—Namaquas, coloured Hottentots of the Cape, Korana of Orange, Hart and Vaal rivers.
(*c*) *Bantu negroes.*
(i) *South-West:* Ova Herrero, Ovambo, Berg Damara, or Klip Kaffirs.
(ii) *South-East:* Xosa-Zulu.
(iii) *Centre:* Bechuana, Basuto.
(iv) *North:* Matabele of Rhodesia.

Asia.

1. *Palestine.*

(*a*) Syrians.
(*b*) Arabs.

2. *Iraq.*

(*a*) Arabs.
(*b*) *Kurds.*
(*c*) *Bakhtiaris* on Persian frontier in oil-well region.

3. *India.*

(*a*) Pigmy negritos in the Andaman Isles.
(*b*) *Mixed negritos*—Veddas in Ceylon, jungle tribes of Southern India, in Chota Nagpur, among lower castes of Ganges valley.
(*c*) *Sikhs* in Punjab plains, between the Sutlej and Indus rivers. (The Akalis are a Sikh tribe.)
(*d*) *Mahrattas* in Bombay Presidency and the Deccan.
(*e*) *Rajputs* in country to east of Indus river and in the Punjab.
(*f*) *Jats* in the Punjab, Rajputana, and United Provinces.
(*g*) *Dogras* in country between Sutlej and Chenab rivers.
(*h*) *Baluchis* in Baluchistan.
(*i*) *Tamils* in Western India and—by immigration—in Ceylon and Malaya.
(*j*) *Ghurkas* in Nepal.

(*k*) *Gharwalis* in Tehri (Gharwal).
(*l*) *Shans* in Burma (east), and *Kuchins* in Burma (north). (Most of the people of Burma are of Mongol origin.)
(*m*) *Moplahs*—fanatical Mohammedans—in Mysore.

4. *Ceylon.*
   (*a*) Immigrant Tamils from Western India.
   (*b*) Sinhalese.
5. *Malaya* and *Far East.*
   (*a*) Malays.
   (*b*) Interior tribes—Dyaks of Borneo, Sakai of the Peninsula.
   (*c*) Chinese.
   (*d*) Tamils.

Pathans of the North-West Frontier.

The Pathans claim to be of Israelitish descent, and probably are. In later life their features become very Israelitish. Their language is Pushtu, which is somewhat similar to Persian, but less polite and more direct. They inhabit the hills bordering Afghanistan, and to a certain extent the plains inside our border. As their country is very barren and inhospitable, and as the trans-frontier Pathans live in a constant state of tribal and family feuds, the race is essentially the product of the survival of the fittest.

Pathans run fairly big—average, say, 5 ft. 7 in. at least. The tribal characteristics vary considerably, some tribes being much better fighters than others.

Pathans are fairer than true natives of India. A good many have fairish hair and blue eyes. Their character resembles that of the South Irish, and they have most of the virtues and failings of that race. Properly disciplined, they are easy to handle, but when not well disciplined their lawless nature and revengeful and fanatical ideas are apt to come out. They are brave, avaricious, ignorant, impatient, often treacherous, plausible, lazy by nature, but capable of great endurance.

Most important Pathan tribes are as follows :—

(*a*) *Independent Tribes* (*i.e.*, those who inhabit the country between own border and the Durand Line).
Bajauris, Otman Khels, Mohmands, Shinwaris (Afghanistan). Afridi, Orakzai, Turis, Wazir, Mahsud, Khostwals (Afghanistan).

(*b*) *British Subjects* (*i.e.*, cis-border).
Yusafzai, Khattak, Bangash, Marwats, Bhittanis, Sheranis.

FORECASTING THE WEATHER.

The weather is one of the elements of success in the conduct of operations, whether they are on sea or land or in air. If action has to be taken not only against the weather, but against time, as in the case of an attack which is planned for zero hour, when it is often a question of now or never, the influence of favourable or unfavourable weather is far too great to be disregarded.

In provisioning large bodies of men, in estimating the possible effect of a gas attack or an air raid, careful consideration of the weather factor is absolutely essential.

Indeed, it often happens that of two sides which in war are evenly balanced, the one who is more skilful in making use of the weather has the better prospect of winning in any operations in which they are opposed.

Reading the Weather.

The best way to read the weather map is to examine carefully the notation and marks for a definite day on *The Times* Weather Map. This may always be found on page 16, and is an appreciation of the general situation, based on the Meteorological Office (Air Ministry) 6 p.m. reports, followed by the forecast for the following day. The map used in the following notes was that of April 3, 1924.[1]

First of all, what does the weather include, and how is it to be described ? It includes :—

The State of the Sky, whether it is clear, cloudy, or overcast.

The State of the Air, whether it is clear, misty or foggy, whether rain, hail or snow is falling, and if so, whether it is steady rain, showers, or drizzle ; whether there is thunder or lightning ; whether there has been dew or hoar frost in the early morning.

[1] All my information has been drawn from Sir Napier Shaw's excellent booklet, "The Weather Map," published by the Stationery Office (1/3).

To make the map concise, and for the sake of uniformity, the general state of the weather is denoted by a number of small letters. These letters have been separated from the main map. In Map I they are as follows :—

North of the Orkneys	*o, bc,*
Off Hebrides	*b,*
East coast of Scotland and England ...	*bc, c, o,*
Northern Ireland	*b,*
North-West Ireland	*c,*
South of England	*o, c,*

and so on.

These letters singly or in combination represent the following conditions :—

o=Overcast sky.
r=Rain.
m=Mist.
b=Blue sky (not more than a quarter of sky covered).
c=Generally cloudy (three parts of sky covered).
bc=Blue sky partly clouded (one half covered).

On closer examination of Map I, we find that north of the Orkneys the sky is overcast, that though it is cloudy there are spells of blue sky off the north-eastern coast of Scotland and North Ireland, with sunshine in the Hebrides, near Dublin, on the south-west coast of Ireland. Elsewhere it is cloudy and overcast, though there is no general rain or mist before we reach Paris.

2. The Map of the Winds.

(*a*) *The Speed of the Wind.*

It is a matter of common knowledge that the weather often changes when the wind changes. In our general map we shall find a number of circles in which are numbers. These numbers denote the speed of the wind at the recording stations. This varies from *calm* (0) to 35 miles an hour (35). The following scale of wind velocity will explain the relation of the numbers to the speed of the wind :—

Specification—General.

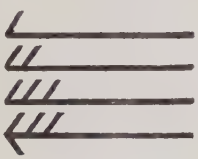
Miles per hour.		*On Hand.*
0	Calm	Smoke rises vertically.
2	Light air ...	Direction of wind shown only by smoke-drift.

Miles per hour.		*On Hand.*
5	Slight breeze ...	Rustle of leaves; wind felt on face.
10	Gentle breeze ...	Waves and trees in constant motion; small flag shaken.
15	Moderate breeze	Moves small branches; raises dust and small papers.
21	Fresh breeze ...	Small trees sway; crested wavelets on inland waters.
27	Strong breeze ...	Large branches in motion; whistling in telegraph wires.
35	High wind ...	Whole trees move; walking against wind difficult.

From Map II we learn that the wind was of light force in Scotland (0 to 10) and moderate or fresh in England (10 to 25), and high locally on the South-East (21) and South (35) Coasts.

(*b*) *The Direction of the Winds.*

The direction of the wind is indicated by arrows, the feathers on either side of which also show the velocity—*e.g.* :—



Calm (5).
Light air (10),
Light breeze (15),
Fresh breeze (21),

and so on.

From Map III it will be seen that the general direction of the wind over the whole of England and Scotland is north-easterly, though about London and in the north of Ireland it is blowing directly from the north. This does not necessarily mean rain. Generally speaking, wind and rain do go together, but there are exceptions, and north-easterly winds bring sometimes a fine spell, sometimes most persistent rain.

To explain this, we must know something of the atmosphere. *Atmosphere* is the name given to the air which surrounds us and is carried along with the earth on which we live. This air is really a mixture of gases; the principal gases are nitrogen, oxygen, argon, carbonic acid gas—and water vapour. To the clerk of the weather the most important constituent of the atmosphere is *water-vapour*, which

has been evaporated from the sea, from other surfaces of water or ice, or from plants or wet soil, and is reconverted into visible water in the form of clouds of various kinds, rain, dew, frost, snow, or hail. This conversion is known as *condensation*. The cause of condensation and evaporation is heat, and the atmosphere is, therefore, like a huge steam-engine drawing heat from the sun and sending it out again into space.

The weather which is experienced locally is just a small part of this great process which is going on over the whole of the atmosphere, though only the lower layer, about 10 kilometres or 6 miles thick, is concerned with the process of evaporation and condensation.

The Temperature of the Atmosphere.

Temperature is indicated by the thermometer and tells us how hot or cold the weather is. This is very important to man, because he can only live within a limited range of temperature in any comfort. The best temperature for an ordinary living-room is $62\frac{1}{2}°$ F. One cannot work very hard when the thermometer rises above 72° F., or stroll along in summer clothes when it falls below 54° F. Furthermore, temperature is largely affected by moisture. In dry weather—22° below freezing-point, or 10° F., is bearable, but unbearable if there is any moisture in the air. The term used to describe the state of the atmosphere in relation to dryness or moisture is *humidity*. When the air is dry, the *humidity* is said to be low; when the air is wet, the *humidity* is said to be high. Both temperature and humidity vary very much with both day and night (*diurnal variation*) and winter and summer (*seasonal variation*). The advantage of the much-abused British climate is in its small variation during the working hours of the day.

Map IV shows the distribution of temperature over the British Isles on our selected date. Lines are drawn separating the figures above 45° F. from those below, those above 40° F. from those below, and those above 35° F. from those below. Some figures remain isolated.

We may now pass to the consideration of the pressure of the atmosphere, the most important of all the weather features, because all the other features—wind, temperature, humidity, cloud, rain, etc.—depend upon its changes. The

ideas which form the basis of the measurement of the pressure of the atmosphere are as follows :—

1. *The air is held to the earth, just as water is, by weight.* The water only does not cover the whole of the earth because there is not enough of it. Both in air and water the weight of the upper layers is continuously crushing down on the lower layers.

2. *It is just as true of air as it is of water, that sooner or later it will find its own level—i.e.*, the pressure of a still atmosphere is always the same at the same level, inside or outside a room, except during such rapid changes as are caused by sudden gusts of wind. It is because of its ubiquity that pressure can be measured. The uniform pressure of air over a square inch is $14\frac{3}{4}$ lb. or 1 kilogramme on a square centimetre. This is a large force even over a small area—9 tons to the square yard—and enormous over the large areas that the weather clerk for the British Isles has to cover.

The pressure of the atmosphere is measured by a *barometer.* There are two common forms—an aneroid or a mercury barometer. For our purpose the mercury barometer is of more use, although any barometer can be made to record its own variations by the movement of a pen carried over a drum of paper moved by clockwork. The apparatus is then called a *barograph* and the record a *barogram.*

It is really only small variation of atmospheric pressure that come into consideration. The average pressure is called a "bar," which=1,000 millibars (m.b.), and in a year the whole range of pressure only varies between 1,060 and 940 m.b., except on very rare occasions, when it may include 925 m.b.

The variation of $\frac{1}{2}$ of a millibar, or ·001 ($\frac{1}{1000}$) of an inch in the mercury column is what matters to the clerk of the weather. Further, the difference is taken at ·12 inch for 4 millibars, or, to be more meticulously correct, ·1185 inch.

i.e.—29·88	...	...	...	...	...	1012
30·00	...	...	...	...	...	1016
30·12	...	...	...	...	...	1020
30·24	...	...	...	...	...	1024
30·35	...	...	...	...	...	1028

These lines are called *isobars.* We realize that their variation is due to the pressure of wind. Map V shows the isobars for April 3. The first step in the study of the sequence of

weather is to look at the isobars and to give a name to any shapes or graphs which are easily recognized. The most easily recognized group is a roughly circular group round a centre of high or low pressure.

In the weather map the lines joining points on the map with the same pressure are marked at one end in *millibars* and at the other in inches.

In our weather map there is no circle of low pressure, but if we read the accompanying remarks we shall find there is one over Switzerland. This is called a " cyclonic " depression, or sometimes a " cyclone " or a depression, or merely a " low." It may be noted that this use of the form " cyclone " has nothing to do with its meaning as a violent tropical storm.

On the other hand, there is on the map a region of high pressure, which is centred in the Hebrides. This is marked with the word " High " and reaches a maximum of 1028 m.b. This is called an anticyclone or a " high." The map may be described as follows :—

There is this well-marked " high " over the Hebrides, and a tongue of 1016 m.b. or more stretching over the whole of the United Kingdom and Northern France. And we can associate the weather with the distribution of pressure without much difficulty. " Apart from slight showers of sleet, hail, snow chiefly confined to Scotland and the eastern districts of England, sunshine was enjoyed in all districts." While, as regards temperature, reverting to Map III, " The day was cold, with temperature highest in the North and North-West, Oban reporting a maximum of 52 degrees and Lerwick of 49 degrees. The general run of maximum was between 40 degrees in the East and 49 degrees in the West. Reading the chart in relation to the chart of the previous two or three days, and noticing that the *anticyclone* has gradually been moving northwards, the light force of the wind in Scotland, its moderation or freshness in England, and its height locally on the South and South-East coast, we may predict its slow movement, even farther north, and possibly a consequent tendency to a ' Low ' depression, so that our forecast reads, ' The weather will be cold and unsettled.' "

High pressure generally implies fair weather ; low pressure generally implies bad weather.

Map N°I
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bc
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bc
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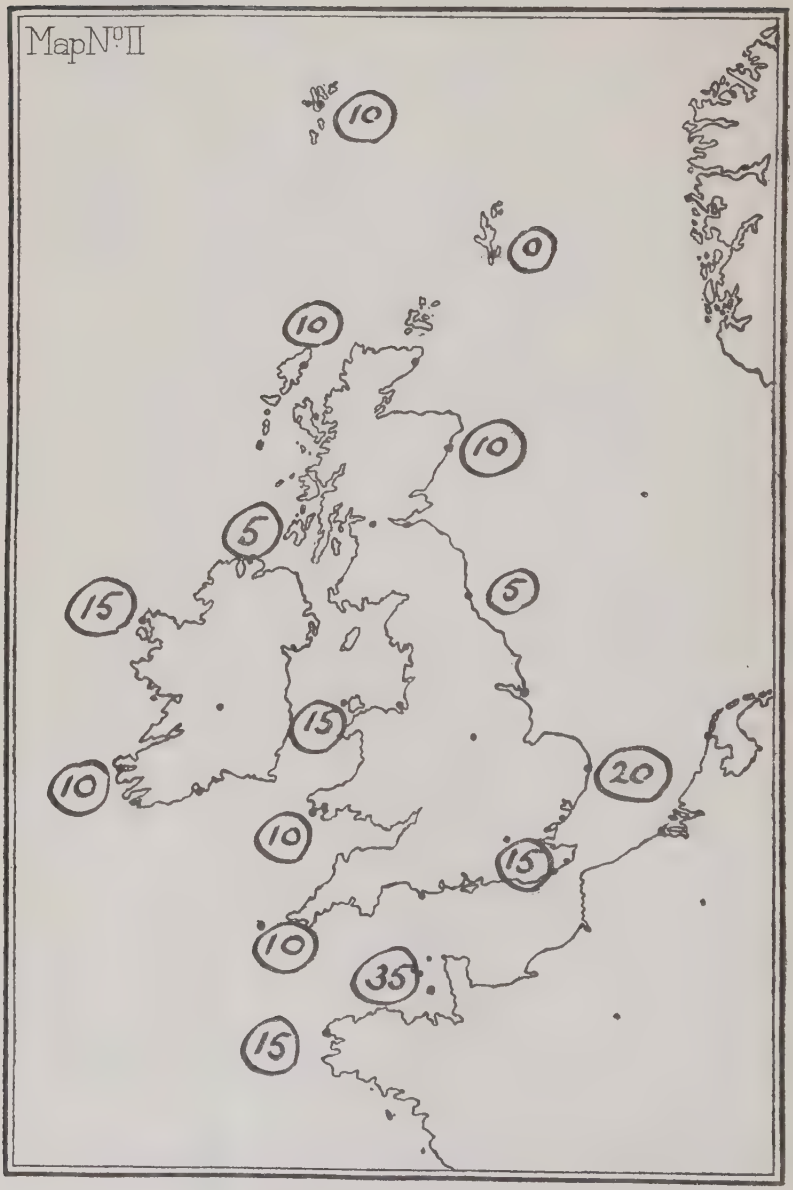
or


Map N°II
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5
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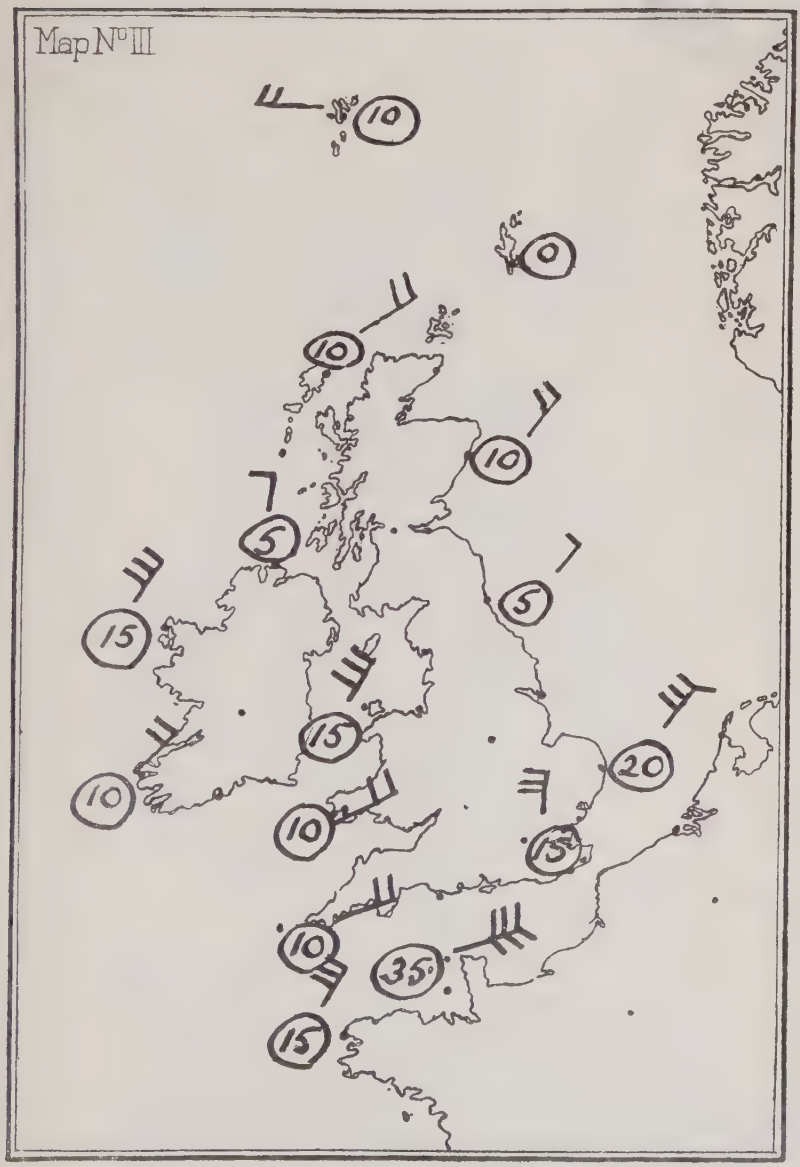
35
15


Map N° III
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48
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46
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36
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37
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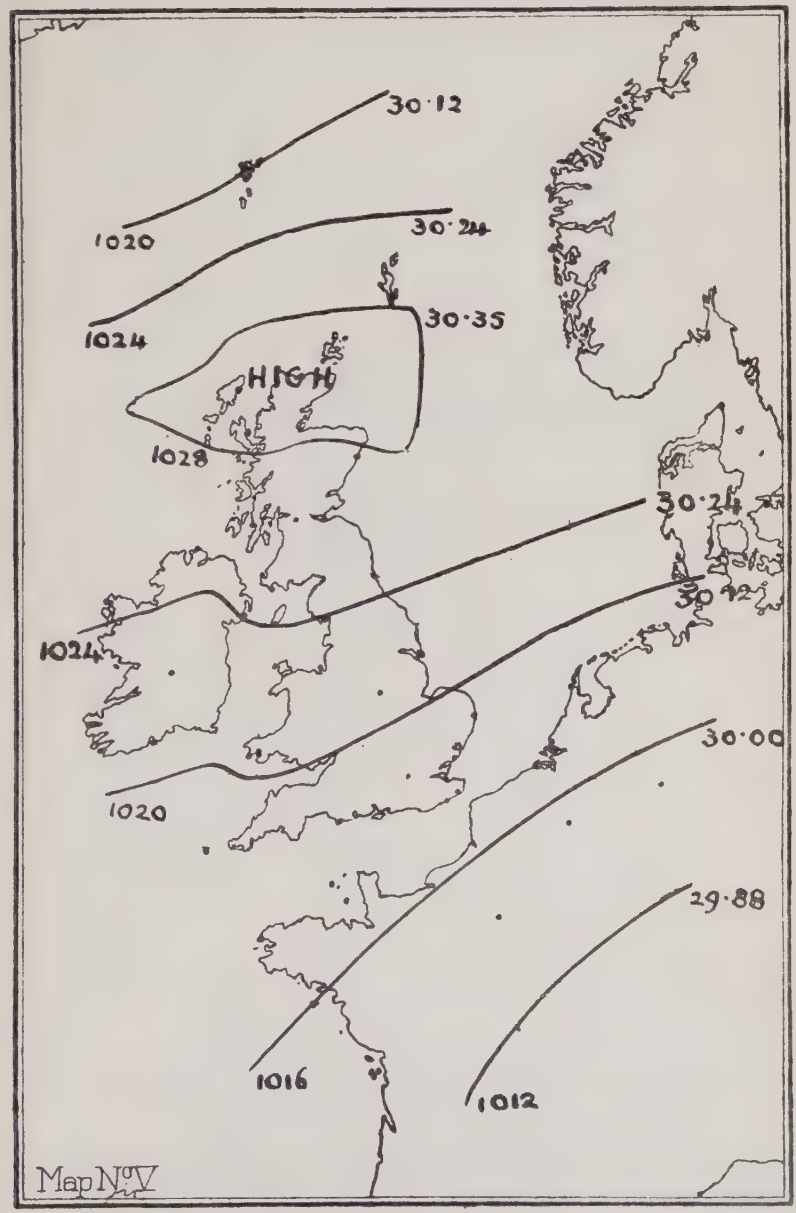
41
36
34
Map N°V


30·12
1020
30·24
1024
30·35
HIGH
1028
30·24
30·12
1024
30·00
1020
29·88
1016
1012
Map No V

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